





#### **Meet the Distinguished Speakers**



SK Dash Air India Limited



Ravi S Menon Air Works Group



Ashmita Sethi Pratt & Whitney, United Technologies Corp. India



Ameya Prabhu President of Indian Chamber of Commerce (ICC)



Dr. Harpreet A De Singh Air India Limited



Commander **Gautam Nanda** (Retd.) **KPMG** 



Parichay Datta Indigo Airlines



Sharad Agarwal AIESL



Vinit Vidyarthi AFII Capital GmbH



Sundreysh Sarup Logistics Plus India



Vassil (Vasko) Vassilev ELFC



Guillaume Limouzy StandardAero



Mangalam Pandey Air India Limited



M.P. Sajumon AIX Connect



Arun Kumar Bansal Spice Jet



H R Jagannath Promqt MRO Private Limited



Anurag Mehrotra Continental Carriers Pvt Ltd



Kailash Krishnaswamy Spirit AeroSystems



Capt.Pushpinder Singh Air India Express



Ashutosh Sharma International Financial Services Centers Authority

#### **Meet Our Distinguished Speakers**



Anubhav Kumar Boeing India & South Asia



Air Commodore **Rajesh Phadtare** (Retd.) VSM **Ramco Systems** 



Nityanand Hanumaiah Qatar Airways



Ramkumar Mohan Air Works Group



Ashok Gopinath GMR Aero Technic



Arun Kashyap SpiceJet



Dinesh Bohra GMR AERO Technic



Dr. Leena Srivastava Shell



Captain
Prasanna CM (Retd.)
Sika Aerospace
and Defence



Alok Kumar Agarwal AIESL



Dr. Vinod Hegde StatValu



Jaffer Mohiuddin Gomsons Aviation



Bhadauria (Retd.)
PVSM AVSM VM ADC
President
Air Force Association

Air Chief Marshal

Rakesh Kumar Singh



**Mihir Kanti Mishra** CEO (Bangalore Complex) **HAL** 



AIR MARSHAL
JN Burma (Retd.)
PVSM AVSM VSM
Indian Air Force (IAF)



AIR MARSHAL **Ak Arora**AVSM VSM

Director General (Aircraft)

Indian Air Force (IAF)



LT. GEN. **Ajay Kumar Suri**Director General & Colonel

Commandant **Army Aviation** 



AIR MARSHAL **RKS Shera** (Retd.) PVSM AVSM VSM **Indian Air Force (IAF)** 



VICE ADMIRAL **Ramakant Pattanaik** (Retd.) PVSM, AVSM, YSM **Indian Navy** 



AIR VICE MARSHAL **Ak Pan**VSM

Assistant Chief Of Air Staff
(Logistics) (IAF)



KAA Sanjeeb

VSM

Assistant Chief of the Air
Staff (Maintenance Plans)
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**DIG Jamal Taha** Principal Director, Air Materiel **Indian Coast Guard** 



GROUP CAPTAIN
Toby Joseph
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Directorate General
Resettlement
Indian Air Force (IAF)



AIR CMDE **Sreedharan Rajesh** Indigenisation - Air HQ **Indian Air Force (IAF)** 



Aircraft Interiors- Cabin Safety & Airworthiness

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**Changing trends in Aircraft Interiors** 

Pg**20** 

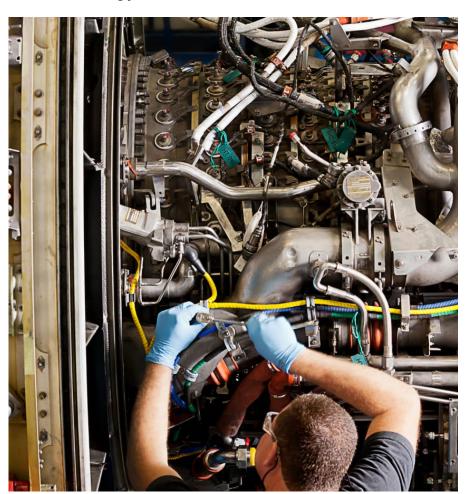
Embraer partners with Mahindra for the C-390 Millennium aircraft project of the Indian Air Force

Pa 43

Feb 15th, 2024

# Triumph secures five-year contract to support CF6-80C2 nacelles engines for an Asia Pacific Operator

Triumph Group, Inc. has announced that its TRIUMPH Product Support business in Chonburi, Thailand has received a contract from an Asia Pacific operator to provide MRO services on General Electric CF6-80C2 nacelles on Boeing fleets.



Triumph Group, Inc. has announced that its TRIUMPH Product Support business in Chonburi, Thailand (TASA) secured a five-year contract from an Asia Pacific operator for providing maintenance, repair, and overhaul (MRO) services.

The contract covers MRO services for General Electric CF6-80C2 nacelles across multiple Boeing fleets. TRIUMPH has extensive experience in servicing CF6 nacelles and offers a diverse portfolio of cost-effective repairs.



TRIUMPH Product Support (TPS) is TRI-UMPH's third-party Maintenance, Repair, and Overhaul (MRO) business, offering total life cycle solutions for commercial, regional, and military aircraft. TPS provides a wide range of aftermarket capabilities, including the repair of aircraft structures, nacelles, and engine and aircraft accessories and components.

Jim Berberet, President, TRIUMPH Product Support said, "Expanding our footprint on the CF6-80C2 nacelles signifies the confidence operators continue to have in TRIUMPH. CF6-80C2 nacelles are a core product for us, and we look forward to continuing to provide our customers with competitive pricing, reliable turn times, and high-quality products and services."

Triumph Group, headquartered in Radnor, Pennsylvania, is involved in designing, developing, manufacturing, repairing, and overhauling a diverse portfolio of aerospace and defense systems and components. The company serves the global aviation industry, catering to original equipment manufacturers and a wide spectrum of military and commercial aircraft operators.

#### **ENGINES**



## Aviation Capital Group handovers solo A320neo aircraft to SAS

Aviation Capital Group LLC has delivered a new Airbus A320neo jet equipped with CFM International LEAP-1A engines to Scandinavian Airlines marking the ninth out of ten aircraft scheduled to be delivered for sale-leaseback transaction.

A viation Capital Group LLC (ACG), a leading global full-service aircraft asset manager, has announced the delivery of a new Airbus A320neo aircraft on a long-term lease to Scandinavian Airlines (SAS). This delivery marks the ninth out of ten aircraft scheduled to be delivered to SAS as part of a multiple-aircraft sale-leaseback transaction between ACG and the airline.

The newly delivered Airbus A320neo is equipped with CFM International LEAP-1A engines, showcasing the latest in fuel-efficient and environmentally friendly aircraft technology. This transaction underscores ACG's commitment to providing modern and efficient aircraft to its airline partners, supporting SAS's fleet management and operational requirements.

ACG is a premier full-service aircraft asset manager specializing in commercial aircraft leasing and aviation finance.

In addition to offering aircraft leasing services, the company provides tailored aircraft asset management solutions to meet the fleet management needs of its customers. With a global presence, ACG manages a diverse portfolio of aircraft assets leased to approximately 90 airlines across 45 countries.

As of September 30, 2023, ACG's portfolio includes over 490 owned, managed, and committed aircraft. The company has established itself as a key player in the aircraft leasing industry, offering a comprehensive range of services to support the evolving needs of its airline partners.

In addition to its leasing activities, ACG provides aircraft asset management services. This includes overseeing the maintenance, operational, and financial aspects of aircraft fleets, allowing airlines to focus on their core operations. ACG's comprehensive

approach to aircraft asset management aligns with the evolving needs of airlines seeking efficient and costeffective solutions.

As a wholly owned subsidiary of Tokyo Century Corporation, ACG benefits from its strategic positioning within the aviation finance sector. The company's commitment to delivering value to its airline partners and adapting to industry trends has contributed to its success and continued growth.

In conclusion, the delivery of the Airbus A320neo to Scandinavian Airlines represents another milestone in ACG's ongoing efforts to support airlines with modern and fuel-efficient aircraft. The strategic partnership between ACG and SAS underscores the importance of aircraft leasing solutions in meeting the operational and financial objectives of airlines in a dynamic aviation environment.



#### **ENGINES**



Acumen Aviation has entered into an exclusive engine management services partnership with Aerolease Aviation offering comprehensive engine management services specifically for Aerolease's portfolio of Rolls Royce Trent 700 engines.

Acumen Aviation, a prominent Aircraft Asset Management Company, has entered into an exclusive engine management services partnership with Aerolease Aviation, a privately owned aircraft lessor based in Miami, FL, USA. The collaboration is designed to offer comprehensive engine management services specifically for Aerolease's portfolio of Rolls Royce Trent 700 engines, underlining Acumen Aviation's commitment to delivering comprehensive solutions for aircraft asset management.

This strategic partnership leverages Acumen's expertise in aero engine portfolio management and Aerolease's proficiency in the leasing sector, with a specific focus on Rolls Royce Trent 700 engines. The engine management services provided by Acumen include proactive maintenance planning, performance monitoring, and cost optimization, catering to the unique requirements of Aerolease's engine

portfolio. The goal is to ensure optimal performance, reliability, and strategic planning for Aerolease's fleet of Rolls Royce Trent 700 engines.

Seán O'Connor, Managing Director – USA & Chief Revenue Officer, Acumen said, "We are thrilled to collaborate with Aerolease in providing specialised engine management services for their fleet of Rolls ROYCE Trent 700 engines. This partnership signifies our commitment to delivering top-tier solutions for our clients, addressing their specific needs in the ever-evolving aviation landscape."

Recognized as a trusted partner in the aviation industry, Acumen aims to further solidify its position by addressing the specific needs of lessors, airlines, and various stakeholders. The collaboration signifies a strategic move to enhance the overall lifecycle management of Aerolease's Rolls Royce Trent 700 engines, emphasizing efficiency and reliability as key priorities.

The collaboration highlights the resilience and adaptability of the aviation industry, with both Acumen Aviation and Aerolease Aviation contributing to innovative and client-centric solutions in engine management services. By combining their strengths and industry recognition, the partnership aims to navigate the challenges of the aviation landscape and offer specialized services that enhance the efficiency and reliability of Aerolease's engine assets.

Jep Thornton, Managing Partner, Aerolease said, "Acumen has established itself as a market-leader in asset management services with global capabilities. We look forward to utilizing their expertise in the management of our Trent 700 engine portfolio."

In summary, the partnership between Acumen Aviation and Aerolease Aviation represents a dynamic approach to addressing the evolving needs of the aviation industry, particularly in engine management services. Through collaborative efforts, the companies aim to enhance the efficiency and reliability of Aerolease's engine assets while contributing to the industry's overall resilience and adaptability.

#### COMPONENTS

# Lilium partners with AJW Group for Material Management to support Aftermarket Services

AJW Group and Lilium N.V, to develop global material services and distribution for operations and Aftermarket Services by managing Lilium's eVTOL spares inventory, logistics services, serving as the exclusive parts distributor.

A JW Group and Lilium N.V, the developer of the first all-electric vertical take-off and landing (eVTOL) jet, have entered into a strategic collaboration to develop global material services and distribution in support of Lilium Jet's worldwide aircraft operations and Lilium's Aftermarket Services Business. The partnership will encompass the management of Lilium's eVTOL spares inventory, logistics services, repair and asset management, with AJW serving

as the exclusive parts distributor for Lilium's customers across the globe.

This collaboration aligns with AJW's commitment to innovation in the next-generation aviation industry and supports Lilium's goal of delivering competitive operating costs and superior parts availability, making material management a crucial component of Lilium's Aftermarket Service Business.

The collaboration comes as Lilium initiates production of the Lilium Jet,

which began in late 2023. Lilium obtained Design Organization Approval from the European Union Aviation Safety Agency (EASA), affirming Lilium's capability to certify aircraft to the highest safety standards. With the Lilium Jet entering into service and the global fleet expanding, Lilium anticipates a material profit contribution in recurring revenue from its Aftermarket Service Business.

Scott Symington, Chief Commercial Officer, AJW Group said, "Innovation is one of our core values at AJW, deeply embedded in the fabric of our operations. We are driven to pioneer revolutionary products, strategically positioning the Group at the forefront of transforming aviation efficiency. Our partnership with Lilium marks a significant stride towards realizing this vision and steering the industry towards a more sustainable aviation future."



#### COMPONENTS



The partnership between AJW Group and Lilium exemplifies a shared dedication to driving innovation, efficiency, and sustainability in the aviation sector. By combining AJW's world-class expertise in material management with Lilium's cutting-edge eVTOL technology, the collaboration aims to provide top-notch support solutions and contribute to the advancement of the aviation industry.

Sebastien Borel, Chief Commercial Officer, Lilium said, "We are delighted to announce this strategic collaboration with AJW Group. This is a very important step as we advance towards our planned entry into service in 2026 and a major milestone in the development of our strategic and comprehensive support offerings for our customers. AJW's proven world-class expertise in material

management and exemplary warehouse and logistics services align seamlessly with our commitment to excellence. Together, we look forward to driving innovation, efficiency, and sustainability in the aviation sector, showcasing our collective dedication to delivering cutting-edge solutions and supporting our customers with attractive unit economics."

As both companies work together to ensure the seamless operation of Lilium's eVTOL fleet, customers can expect enhanced service quality, streamlined logistics, and a focus on sustainability in the rapidly evolving landscape of urban air mobility. This collaboration underscores the importance of strategic partnerships in advancing the development and support infrastructure for innovative aviation solutions like Lilium's all-electric vertical take-off and landing aircraft.

#### ZeroAvia begins tests on 200kW Silicon Carbide Aviation Inverter

ZeroAvia has completed the initial testing campaign of its 200kW continuous power inverter design demonstrating operation at 230 kW from 800 Volts of direct current with a power density exceeding 20 kW/kg.

ZeroAvia has achieved a significant milestone by successfully completing the initial testing campaign of its 200kW continuous power inverter design. The inverter has demonstrated operation at 230 kW from 800 Volts of direct current (Vdc) with a remarkable power density exceeding 20 kW/kg. This inverter performance represents a substantial advancement for the aviation industry, particularly in terms of weight efficiency.

The inverter technology developed by ZeroAvia is a crucial component of its zero-emission, hydrogen-electric aviation engines. Inverters play a key role in converting the DC power supplied by electric power sources, such as hydrogen fuel cells, batteries, or hybrid systems, into Alternating Current while controlling the flow to electric motors. ZeroAvia's hydrogen-electric systems are positioned as environmentally beneficial for commercial aviation, producing only low-temperature water vapor exhaust.

Val Miftakhov, Founder & CEO, ZeroAvia said, "Our electric propulsion team in Washington State has delivered transformative technology here in a record short time window, moving rapidly with an agile mindset. This kind of technological breakthrough will create enormous value for the company and will have massive impact on transitioning the entirety of aviation away from fossil fuels."

Over the past two years, ZeroAvia has

independently developed its silicon carbide inverters, incorporating innovations in semiconductor module designs, gate driver designs, modularity of phase circuits, and manufacturability. The company has successfully designed inverters in single (225 kW peak / 200 kW continuous) and dual (450 kW peak / 400 kW continuous) configurations. This core inverter technology is intended for use across all engine sizes, starting with the 600kW ZA600 engine for 9-19 seat aircraft and later integrated into the HyperCore motor for the ZA2000 engine variant designed for 40-80 seat regional turboprops.

The achievement of successful inverter testing is a major milestone for ZeroAvia and supports its certification efforts for the ZA600 engine, targeting 9-19 seat aircraft. The company aims to complete the certification process in the United States and the United Kingdom by the end of 2025. The breakthrough in inverter performance represents not only a technical achievement but also positions ZeroAvia as a leader in specific power performance for power electronics devices, emphasizing its commitment to transitioning aviation away from fossil fuels.



### **OUR SERVICES**

#### Maintenance Services

- •Airframe Services Narrow body and Wide Body Aircraft •APU Overhaul Services
- ●Components Overhaul Services •Landing Gear Overhaul Services
- •Structural Repairs/Modification
- •Cabin Repair / Modification
- •Aircraft Painting

Hangar Support

## Engineering Support Services

- Engineering Training
- •Asset Management
- Project Management
- •Material Management
- Quality Assurance
- •Engine Lease Return Services
- •24x7 AOG Support



- •NDT, Aircraft Weighing, Calibration of Instruments & Chemical
- •Engine Boroscopes Proof Load Test of Aircraft

and Lifting Devices

- •On-Wing Engine Cleaning with ECO Wash Facility and **Equipment Support** FAI
- •Engine Testing



- •99 Domestic Line Stations
- •Major Maintenance Facility at 7 Cities across India
- International Branch offices at
- KTM & UAE (SHJ, DXB, RKT)

#### Our Strengths

- •Highly Skilled & Trained Manpower •Extensive back shops capabilities to support

frontline maintenance

- •FAA/EASA approved Base Maintenance Facility & Engine Shop



# AIRCRAFT INTERIORSCABIN SAFETY & AIRWORTHINESS

hile plush and pleasant Cabin interiors are pleasing for airline customers to choose a particular air carrier brand, airline companies and OEMs must ensure that cabin safety and airworthiness are assured in the delivery and acceptance of a product, over and above the cosmetics. Here every element must pass the regulatormandated tests. This compliance and airworthiness very much mean that this is necessary for a business to even operate. Survivability is key and cabin safety mandated standards if not adhered to, hampers airworthiness the main eligibility criteria for permission being granted for operating.



Air travel is being made safer with every new generation and variant of aircraft type across OEMs. This is thanks to the meticulous historical record and data management of earlier incidents and accidents, which form sufficient research material to work on avoiding or circumventing the problem, in design and engineering adding failsafe measures. 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.

Designing cabin interiors is pure science and art-infused. Cabin interiors are enhanced for comfort, and importantly must be rendered safe to travel in. Here,



there is an ongoing effort to increase 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, the various cabin interior emergency requirements like supplemental passenger oxygen, emergency equipment, seats, flammability, emergency exits, emergency lighting and escape path markings, and various other cabin interior systems.

Therefore, manufacturers, carriers, regulators, and airport operators across the globe, work closely to improve overall safety in airline operations.

#### **Cabin Crew Safety Training & Cabin** Safety Management

#### **Escape slides/Chutes**

Passenger airplanes are equipped with automatic, self-inflating slides that are made of fire-resistant materials and tested stringently to ensure a 90-second limit of evacuation of passengers in an emergency. Safety regulations require 60 persons to be evacuated per sliding lane per minute. New technologies and research data from past events have gone into developing the most advanced escape slides aiding survivability.

The door slides are mandated to inflate within 10 seconds of deployment, with off-wing slides given a 15-second limit. These are made for all aircraft sizes and can withstand multiple contingencies. Emergency landing on the water during water survival training, which is performed in the pool using actual life jackets and life rafts."

Cabin crew training and compliance with regulators' mandates ensure a safe cabin experience 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 where survivability in an emergency is the ONLY priority.

Safety training for the crew - in flight is the most important part of keeping the cabin experience safe, and training drills include observing shortcomings and reporting timely to the right authority to recognize cabin safety and design problems and address these promptly for timely rectification.

#### Some cases of safer air travel and survivability

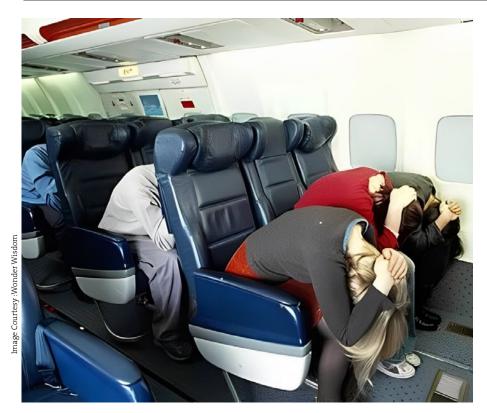
Most incidents and accidents occur during take-off or landing, and some events as appended herein:

#### Increasing survivability: the scope for benefit

While the fatal air accident rate worldwide has fallen significantly, there has not been an equivalent reduction in the fatality rate of onboard crew and passengers.

According to studies, 1500 die each year in air transport accidents. Out of

#### FEATURE



this, some 900 deaths are caused by non-survivable accidents. The other 600 die in technically survivable accidents. Crashworthiness, fire, and evacuation issues are all important. Out of the 600, perhaps 330 deaths occur as a direct result of the impact and 270 because of smoke, toxic fumes, heat, and evacuation challenges.

Public demand for air travel has increased steadily and this has led to airframe manufacturers to design airframes for carriage of 800 or 1000 passengers. Incorporating improvement in the survival rate in designs is a given.

Measures to improve the survival rate

Impact protection - Based on studies and considering various aspects, three impact protection measures are given priority attention: Improvement of seat-floor strength, Three-point safety harness occupant restraint, and Improvement to the strength of overhead stowage.

Fire survivability rating improvements Fitment of an external camera/ cockpit monitor, Introduction of smoke hoods in all commercial aircraft, following ergonomic study of stowage and accessibility, Fitment of water mist systems in new types of commercial aircraft; improvements in fireworthiness standards of cabin materials, including toxic emission prevention standards; **Enhancement of Fire Services operating** close to airports.

#### **Evacuation**

Fast and effective evacuation can save many lives in case of a technically survivable aircraft accident. However, several other factors can improve the overall evacuation speed despite unruly passenger behaviour. These are:

- ★ Cabin environment control of the presence of fire, smoke, and/or toxic fumes in the cabin:
- ★ The configuration of the cabin, the seating configuration near the emergency exits, and ease of opening the exit hatch and the bulkhead aperture;
- ★ The crowd control skills of cabin crew during emergency evacuations.
- ★ Passengers' knowledge of safety procedures and their motivation to get acquainted with them.

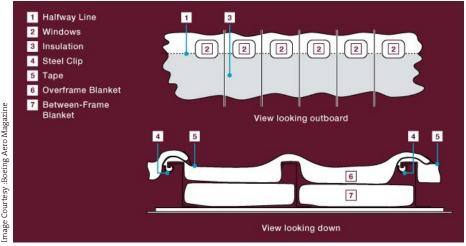
The time limit set by the FAA is 90 seconds for evacuation of all passengers from an aircraft. A typical aircraft interior has several built-in features such as escape slides, floor proximity slides that allow rapid emergency handling essential for survivability.

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 can block out overhead lighting and hence floor lighting shows up emergency path. According to FAA, such a system betters the evacuation rate by twenty percent in some situations.

#### 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, and flight and cabin crew training.

Regardless of whether it is a simple modification, a customized business jet for a VIP, or an airline passenger seating configuration, airworthiness personnel must understand and adhere to the requirements laid down by the regulator. While cabin interior emergency provisions are critical, 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 are conducted for quality certifications. Any changes proposed to an aircraft cabin interior require continuing compliance with all relevant EASA Part 21 and CS 25 Requirements.

#### Time management

The cabin crew member must be

prepared for passengers boarding and deplaning at multiple stops, while maintaining the requisite levels of meal requirements, and amenities, developing soft skills, and quick thinking under pressure are crucial in emergencies. A 'mental preparation' module as part of training. Training in time management ensuring TAT (aircraft turnarounds), the handling of unruly passengers, control and containing suspected infectious diseases on board an aircraft cabin, and

Image Credit: The Points Guy: Aircraft galleys have red latches to ensure that the food carts and boxes are secure and in place during take-off and landing and turbulence.

the role of simulation devices.

#### Dealing with difficult passengers

Self-defense, in the handling of unruly passengers, is an important part of cabin safety training. These procedures and techniques are included in airline manuals. Crew awareness to detect the earliest signs of a safety contingency brewing and reporting is part of that drill.

#### Containing Suspected infectious diseases onboard

Containing possibilities of airborne and infectious disease inside the aircraft cabin is another set of training for flight attendants. Includes recognizing passengers who may be infected or show symptoms before they onboard, or during the flight. SOPs for cabin crew include isolating the infected person, and the use of respirators, masks, or gloves to avoid contamination. Crews are trained to manage basic medical situations with the help of MedAire. Disease prevention and blood-borne pathogen training, food handling safety are critical to training imparted to cabin crew members.

#### **Conclusion:**

Travellers choose flights based on the quality of the inflight food or the comfort of the seats, inflight entertainment, and more. However, these elements of luxury and comfort are secondary to the safety features of the aircraft. Whether it is a fire detection system, firefighting equipment, or circuit breakers, there are several systems in place to ensure there is no serious fire threat in the cabin/aircraft. Unobtrusive items such as latches and locks ensure that the heavy carts in the galley do not get loose during bad weather and injure people.

#### Safety will always be the number ONE priority.

#### Reference Credit:

Websites of Boeing, Airbus, IATA, ICAO mpofcinci.com sae.org The Points Guy Sofema Aviation Services (SAS) https://etsc.eu/ Aviation Business News

#### AIRCRAFT INTERIOR

# RECARO Aircraft Seating to provide premium economy and economy seating for Air India

Air India has chosen RECARO Aircraft Seating as its premium economy and economy seating partner for widebody aircraft, with more than 22,000 RECARO seats to be installed in both linefit and retrofit programs over the next five to six years.



All three seats will showcase Air India's signature custom trim and finish, and the latest in-flight entertainment (IFE) systems will be integrated into each seat.

Recard Aircraft Seating has been chosen by Air India as its premium economy and economy seating partner for widebody aircraft, marking a collaboration that will see more than 22,000 RECARO seats installed in both linefit and retrofit programs over the next five to six years.

The partnership involves the retrofitting of 40 Boeing B787 and B777 aircraft with CL3710 and PL3530 seats in the economy and premium economy cabins, set to enter service in 2024. Additionally, an order for 34 Airbus A350 and B787 aircraft was placed, featuring CL3810 and PL3530 seats for the economy and premium economy cabins, respectively.

RECARO Aircraft Seating's CL3710, a six-time design accolade recipient, will be installed in the economy class, providing passengers with a six-way adjustable headrest with neck support for enhanced sleeping comfort. For premium economy, the PL3530 offers unparalleled comfort, functionality, ample stowage, and a generous 7" recline. The CL3810, designed for economy class



travelers, features spacious seating, ample legroom, a six-way adjustable headrest, and lumbar support, setting a benchmark in comfort on long-haul flights.

"We're happy to get into this partnership with Recaro Aircraft Seating," said Campbell Wilson, CEO and MD, Air India. "This will help us offer an enhanced experience for our passengers at this transformative time for Air India and add value to our passenger-centric focus making us more competitive on the global aviation stage," he further added.

All three seats will showcase Air India's signature custom trim and finish, and the latest in-flight entertainment (IFE) systems will be integrated into each seat. The seats prioritize an ergonomic and sustainable approach, with durable and lightweight materials contributing to the long life cycle of the seats while supporting a reduced carbon footprint for the aircraft.

"We are thrilled to embark on this journey with Air India, as the recipient of this substantial award," said Dr. Mark Hiller, CEO, RECARO Aircraft Seating and RECARO Holding. "RECARO is eager to begin collaboration, bringing our innovative seating solutions and exceptional customer service to complement Air India's global standard of high-quality service," he further added.

Air India, India's leading global airline, operates an extensive network with non-stop flights to 39 international destinations in 27 countries, along with connecting 45 cities in India. The airline, a member of Star Alliance, has placed a record-setting order of 470 aircraft and is receiving a new aircraft every six days throughout 2024.



# Duncan Aviation handovers first G650 aircraft with latest interior upgrades

Duncan Aviation has delivered its first complete paint job for a Gulfstream G650 at Duncan Aviation's Provo facility also involving interior enhancements, including custom luxury vinyl tile flooring, custom carpet, and reupholstered crew seats.

Duncan Aviation, a leading aircraft service provider, recently achieved a significant milestone by successfully delivering its first complete paint job for a Gulfstream G650 at its full-service maintenance, repair, and overhaul (MRO) facility in Provo, Utah. This noteworthy accomplishment reflects Duncan Aviation's expertise in handling newer airframes and underscores the company's commitment to providing high-quality services across its various locations.

The Gulfstream G650, a state-of-the-art long-range business jet, underwent a comprehensive transformation at Duncan Avia-

tion's Provo facility. The project involved a complete repainting of the aircraft's exterior, along with interior enhancements, including custom luxury vinyl tile (LVT) flooring, custom carpet, and reupholstered crew seats. This collaborative effort showcased the MRO's ability to seamlessly handle newer airframes and deliver a topnotch customer experience.

The customer, a long-time Duncan Aviation client, had previously operated a Falcon 50 for several years before deciding to upgrade to the Gulfstream G650. The decision to bring the aircraft directly from its pre-purchase evaluation to Duncan

#### AIRCRAFT INTERIOR

Aviation's Provo facility was driven by scheduling considerations and the need for a quick turnaround.

Adam Beach, Senior Completions & Modifications Sales Representative, explained that the customer initially had reservations about transitioning to a different Duncan Aviation location, as they had worked with the same project manager in Battle Creek, Michigan, for years. However, due to limited availability in Battle Creek and the urgency of the project, Provo emerged as the optimal solution.

Adam Beach, Senior Completions & Modifications Sales Rep, Duncan Aviation said, "The customer was great to work with. They had brought their Falcon 50 to our facility in Battle Creek, Michigan, for years, but this was their first experience with Duncan Aviation's Provo location. The entire Provo team and I quickly worked to build on the company's existing relationship with the customer. We wanted him to feel confident that he would receive the same VIP treatment while in our care. Working on newer airframes that we don't yet have extensive experience with requires excellent teamwork. We have a supportive team with a wide range of knowledge and experience. When we have an airframe that is fairly new to our facilities, Duncan Aviation team members rally together, trusting in one another, giving 110%, and delivering a beautiful product. We are continually looking for ways to challenge ourselves, pushing the status quo, and raising the bar on industry standards."

The customer's business expansion necessitated a more globally oriented aircraft, and the Gulfstream G650 was chosen to meet those requirements. While the existing paint on the G650 was in good condition, the customer sought a specific look to align with the company's branding. The interior, while well-maintained, underwent updates to ensure it matched the customer's preferences.

The customer knew Duncan Aviation for our quality work," Adam Beach, Senior Completions & Modifications Sales Rep, Duncan Aviation. "We were happy to complete this aircraft for him. We are excited to see more newer models in our hangars, and this project shows that we are equipped to handle them. The existing paint on the aircraft was in great condition, but he had a very specific look to his branding. He wanted his new aircraft to have a similar scheme to the old one, just updated. The customer wanted the same carpet installed that was in their previous aircraft. They were really looking for that homey feeling and to freshen up the interior," he further added.

The interior enhancements included the installation of new carpet and the addition of custom luxury vinyl tile (LVT) flooring in the entryway and lavatory areas. The customer opted for the same carpet installed in their previous aircraft to maintain a familiar and comfortable atmosphere. Amie Jensen, Lead Designer on the project, played a pivotal role in drawing up the paint schemes, ordering carpet specifications, and coor-

dinating the interior updates.

"He loved the herringbone pattern that we have on display in our Design Center, and the second he saw that he knew it was exactly what he wanted," said Amie Jensen, Lead Designer, Gulfstream G650. "The LVT flooring holds up nicely, looks fantastic, and matched the interior perfectly. I'm ecstatic to continue working on these incredible aircraft. The mod capabilities and possibilities are endless," he further added.

The LVT flooring, known for its durability, easy maintenance, and high-end appearance, was chosen to elevate the overall aesthetics of the aircraft's interior. In addition to the flooring, the interior updates featured reupholstered crew seats, contributing to a refreshed and modernized cabin.

"There are a lot of options when it comes to LVT and being able to customize it,"Brandon Crosby, Team Leader for Upholstery, Duncan Aviation."It is also an extremely durable material and provides a high-end look. By adding the new carpet and flooring, it really changed the look of this aircraft and brought it to a whole, new level," he further added.

While the maintenance work on the aircraft was minimal, the collaborative efforts of Duncan Aviation's diverse teams, including airframe technicians, designers, and upholstery specialists, played a crucial role in the project's success. The Gulfstream G650 presented a learning curve for the team, emphasizing the importance of teamwork and ongoing learning to handle newer airframes.

"The G650 has its own personality," said Paco Velez, Airframe Tech Rep II, Duncan Aviation. "Our team had to be spooled up, and Duncan Aviation sent additional technicians to maintenance training to familiarize them with the aircraft. Our team is always learning, and eager to expand their knowledge. The Gulfstream team takes pride in working on all legacy aircraft, along with the next generation like the G650. The whole organization is here to support every customer and create long-term customer relationships," he further added.

The customer's satisfaction with the seamless transition to a different Duncan Aviation location and the overall experience affirmed the company's reputation for delivering exceptional service. Duncan Aviation continues to position itself as a global leader in aircraft service, offering a wide range of maintenance, repair, and overhaul solutions to business aircraft operators, government agencies, and other aviation service providers.

With full-service facilities in Battle Creek, Michigan; Lincoln, Nebraska; and Provo, Utah, and strategically located facilities throughout the United States, Duncan Aviation provides comprehensive support and rapid response to Aircraft On Ground (AOG) situations. The successful completion of the Gulfstream G650 project exemplifies Duncan Aviation's dedication to raising industry standards and delivering outstanding results for its customers.

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#### AIRCRAFT INTERIOR



### Hi Fly adds solo Airbus A330-300 jet to fleet

Hi Fly has expanded its fleet with an Airbus A330-300, registered as 9H-HFI with a seating capacity of 313 passengers configured to meet diverse travel needs, featuring 36 spacious Business Class and 277 Economy Class seats.

i Fly, a Portuguese airline has expanded its fleet with the addition of an Airbus A330-300, registered as 9H-HFl. The aircraft, acquired in December 2023, enhances Hi Fly's capacity to serve various routes. With a comfortable seating capacity of 313 passengers, the A330-300 is configured to meet diverse travel needs, featuring 36 spacious Business Class and 277 Economy Class seats.

In Business Class, passengers can enjoy a generous seating pitch of 52 inches, providing ample legroom and comfort for a premium inflight experience. The class features individual

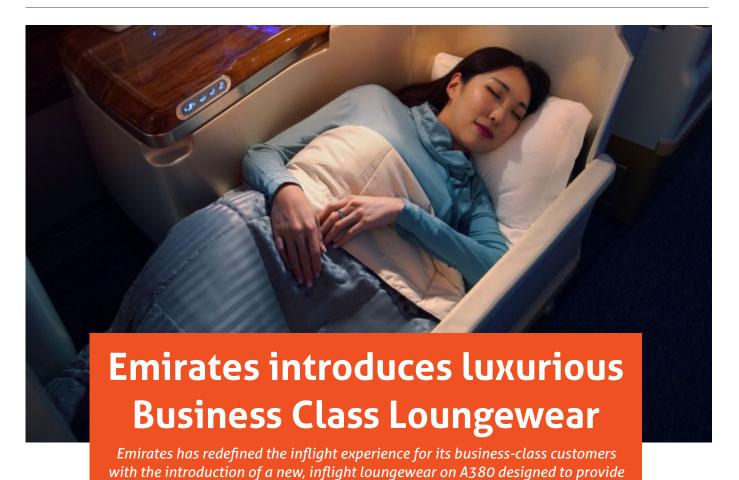
screens, enhancing the overall enjoyment of the journey. The cabin layout is designed to cater to a wide range of inflight needs, ensuring a comfortable and luxurious experience for passengers.

Economy Class on the A330-300 offers a pitch of 32 inches, ensuring comfort for long-haul flights. The twin-aisle configuration follows a 2-4-2 layout, allowing each passenger access to either a captivating window view or easy aisle access. This design emphasizes both comfort and functionality, providing passengers with a pleasant travel experience.

Since joining Hi Fly's service in December, the A330-300 has operated flights to various destinations, including Angola, Brazil, Canada, Germany, Pakistan, Portugal, Taiwan, and the United Arab Emirates. The aircraft's versatility makes it suitable for serving diverse routes across different regions.

The Airbus A330-300 is part of the modern and reliable family of aircraft, known for its operational efficiency, boasting a rate of 99.4%. This quality solution benefits both passengers and airlines, making it a preferred choice for a variety of routes.

Hi Fly, based in Portugal, specializes in charter and wet lease services, offering flexible solutions to meet the needs of its customers. The addition of the Airbus A330-300 underscores Hi Fly's commitment to expanding its fleet and providing enhanced travel options for passengers. The airline continues to strengthen its presence in the charter and wet lease market, offering a range of aircraft to suit different requirements.



Emirates is set to redefine the inflight experience for its business-class customers with the introduction of a new, complimentary inflight loungewear which was launched on February 1, 2024. The Business Class Loungewear set is thoughtfully designed to provide passengers with comfort, style, and versatility during their journey, whether it's for sleeping, socializing at the Airbus A380 onboard lounge, or making a stylish arrival.

The loungewear set includes a relaxed cowl neck top, drawstring pants, comfortable slippers, and a matching eye mask, all composed of a super-soft premium modal material. Modal is known for being lightweight and breathable, offering an ideal 'flight fit' for passengers. The fabric is in a soothing shade of light blue, reflecting contemporary athleisure trends. Available in two sizes, the loungewear is designed with an elegant drape, ensuring comfort for various body types.

Each set comes in a complementary drawstring pouch, featuring an adjust-

able loungewear top and pants, slippers, and an eye mask. Business Class passengers will be offered the loungewear set upon boarding, allowing them to change at their convenience and maximize comfort throughout the flight. On flights with a duration of 9 hours or more, passengers will receive the full loungewear set, while on shorter flights of 2 hours and 30 minutes, they will be provided with complimentary slippers and eye mask sets.

passengers with comfort, style, and versatility during their journey.

This new addition to the Emirates inflight experience is part of the airline's ongoing commitment to elevating customer experience across all classes. Recent investments have covered various aspects, including a retrofit project for 120 aircraft with upgraded cabin interiors, new menus featuring high-quality ingredients, exclusive partnerships for champagne, a hospitality program for cabin crew, live TV onboard, complimentary Wi-Fi for all customers, luxurious amenity kits, and an extensive wine list.

The multimillion-dollar investment in

the Business Class loungewear has been in development for over a year, with the design created in-house by the Emirates team to ensure it meets the highest standards of comfort, style, and reusability. During a trial period on routes to and from New York and Boston, customers provided highly positive feedback on the loungewear, with some taking sets home to wear again.

Emirates has played a significant role in India's aviation landscape for 37 years. The airline's operations in India began in October 1985 with flights from Dubai to Delhi and Mumbai, forming the foundation of its initial route network. Over the years, Emirates has expanded its presence in India and currently serves a total of nine destinations in the country: Ahmedabad, Bengaluru, Chennai, Delhi, Hyderabad, Kochi, Kolkata, Mumbai, and Thiruvananthapuram. The commitment to investing in India's aviation market showcases Emirates' dedication to growth, partnership, and providing a premium travel experience for its passengers.





#### SPECIAL STORY

ircraft cabin, one of the first tangible features of an airline that has a direct connection with the passenger. As soon as a passenger steps inside an aircraft, the first noticeable aspect is the cabin interior, the hue and colors, the mood-lighting...then slowly as the passenger makes his way towards his seat, the next feature that is in direct contact with the passenger is the seat cushion/cover, the Wi-Fi connectivity, In-Flight entertainment, the headphones and goodies (if any) that are placed in the seat pocket. If the passenger is pleased with all of the above, he will rank the airline as number 1 on his priority list the next time he travels and also spread a word-of-mouth publicity about the airline and the comforts it provides.

"A cabin creates the image of an airline," says Dr. Praveen Shrivastav, CEO of AeroChamp. "It's a struggle for every Airline to offer a cozy feel to the passengers in every class and enhance their flying experience." Therefore, he stresses on the importance of aircraft interiors and the role it plays in creating an overall perception in the minds of a passenger about the airline as a whole.

Really, it's the little things that makes all the difference when it comes to customer loyalty and satisfaction as aircraft interiors is almost always on the radar or anything out of place resulting in passenger discomfort or fury.

Let dive a bit further into the world of aircraft interiors, what are the latest trends post-COVID and how is the industry rapidly advancing towards digitization and AI.

Setting the tone of the discussion, Naveen Chawla, CEO of Epsilon Aerospace urges the airlines to redefine their strategies to uphold interior standards that align with global norms. "This approach will not only guarantee the safety and comfort of customers but also serve as a compelling factor for airlines to retain their clientele in the long term. To achieve this, significant efforts must be dedicated to cabin maintenance, including the use of appropriate materials and obtaining necessary approval certifications."

Sustainability - High on the Agenda

Speaking about appropriate materials, one of the most commonly found trend in aircraft interiors is the use of sustainable materials in aircraft interior designing. "As passengers in certain regions are getting more and more climate-conscious, sustainability has become a paramount concern for many airlines, particularly in Europe and Japan," says Arthur Glain, Advanced Concept Manager at Safran Seats. "Airlines are placing significant emphasis on reducing weight, sourcing bio-material and increasing recyclability, with Safran Seats taking a leading role in these efforts," he adds.

Dr. Shrivastav also feels that Sustainability is the buzz word across the aviation industry and aircraft interiors material researchers and manufacturers are progressively developing eco-friendly products. He further goes on to explain this with an example of faux leather upholstery a replacement to the animal skin leather. "I have seen some premium quality faux leather like Izit replacing the genuine leather passenger seat upholstery. Airlines have started considering carbon neutral and recyclable interior material against the traditional material and there is a lot of research being carried out in this area," he added.

#### Sub-segmentation in cabin-class with Premium economy leading the way

Apart from the rising use of sustainable materials like eco-friendly paper, wooden plates and cutlery for servings and complete avoidance of single use plastic, the aircraft cabin has undergone rapid sub-segmentation as complex cabins appear as opportunities for ancillary revenues, right from business class to first class, economy to premium economy. With evolving trend in airline booking systems, we are seeing more and more airlines willing to create subsegmentations within a given, creating distinct passenger experiences, catering to specific passenger needs and boosting ancillary revenues explains Glain. Glain explains this with the aid of an example of incorporation of 'Elite' front row monuments offering a first-class experience to passenger at front-end of the cabin, has become a crucial element in the design of new cabin layouts.

#### SPECIAL STORY



Apart from this post-COVID traffic surge has been fueled by an increase in leisure business travelers who are willing to pay extra for a more comfortable travel experience.

"Premium economy has emerged as the new class over the past couple of years, as the frequent flyers expect more comfort with better leg room and additional services on long haul flights," adds Shrivastav. "While the seats remain same as the economy class, challenge lies in differentiating the premium economy class by its appearance and additional features," he argues further.

Meanwhile after experiencing a decline over the last decade, the First-Class segment is witnessing a remarkable revival. Key players are enhancing their offerings, and new entrants are entering this market.

Going ahead post-COVID-19 pandemic airlines are coming forward and investing in lavish and luxurious aircraft interiors for a better and enhanced customer experience. "Airlines are acutely aware that their onboard products constitute a crucial aspect of their brand identity," says Glain. "Notably, impressive retrofit programs undertaken by airlines like Air India and Emirates serve as compelling evidence that carriers are steadfast in their determination to uphold and elevate the quality of their interior offerings," he adds.

Air India has invested about \$ \$400

million to refurbish cabin interiors of all its existing wide-body aircraft, comprising 27 Boeing B787-8 and 13 B777 aircraft. The refurbishment includes complete overhaul of existing cabin interiors, including the addition of latest generation seats and best in-class inflight entertainment across all classes. The airline also unveiled the first look of what passengers can expect from the aircraft by revealing the first images of its interiors. The aircraft offers a threeclass cabin configuration with 316 seats designed by Collins Aerospace: 28 private business class suites with full-flat beds, 24 premium economy seats with extra legroom and multiple other differentiating features, and 264 economy class seats.

Air India also offers the latest-generation Panasonic eX3 in-flight entertainment system and HD screens on all seats of its A350.

Air India has introduced premium economy for the first time in its latest B777-300. The airline plans to deploy the 777s to connect metro cities of the country with more international destinations.

Emirates is also investing over \$2 billion in cabin products for its A350 and 777X. The massive programme included retrofit of over 120 aircraft with the latest interiors, plus an array of other service improvements across all cabins.

The cabins are retrofitted with new or reupholstered seats, new panelling,

flooring and other cabin features with every cabin class refreshed and new Premium Economy cabins installed. After the retrofit, Emirates now has a total of 120 aircraft offering Premium Economy seats, the only airline in the region to offer this cabin class, and enhanced interiors and features across all other cabins.

Thus, we can see how airlines are acutely aware that their onboard products constitute a crucial aspect of their brand identity. The realization that investing in their brand translates into a tangible return on investment is driving a significant commitment to enhancing aircraft interiors.

This proactive approach underscores the industry's recognition that a superior in-flight experience contributes not only to passenger satisfaction but also to the overall perception of the airline's brand, thereby solidifying their commitment to sustained investment in aircraft interiors.

Post COVID, as the aviation industry has seen a steep growth, there is shortage of aircraft. This has led to airlines considering older aircraft by refurbishing the cabin interiors. "There has been a surge in demand of aircraft interiors material and the manufacturers are struggling to meet the demand.," adds Shrivastav. "Most manufacturers and refurbishment shops have seen much higher workload, which is a reflection of the growth in the aircraft interiors industry," he concludes.

#### Evolving technology in aircraft interiors

The landscape of aircraft interiors has undergone a notable transformation in recent years, marked by advancements in both technology and aesthetics. Glain further elaborates this stating passenger-centric technologies now play a decisive role in seat selection.

The technology has evolved from 

★ simple pneumatic cushions with 
limited massage functions a decade ago 
to a diverse range of features such as 
heating, cooling, and perceived noise 
reduction.

★ Innovations like Euphony, allowing passengers to enjoy in-flight entertainment without headphones, represent game-changing additions.

#### SPECIAL STORY



★ The latest generation In-Flight Entertainment (IFE) systems boast high-definition, larger, and more responsive touchscreens, offering direct connectivity to seats or personal devices for an enriched entertainment experience. ★ IFE content management is another area which has undergone a revolutionary change in last 10 years, with on-demand movie and other content available to the passengers now, giving a homely feel at 38,000 feets above the ground.

This technological evolution has reduced the fuel consumption due to weight reduction and offers a better experience to the passengers.

In terms of aesthetics, cabin interiors have shifted away from the neutral esthetics dominated by airframers, featuring light grey window panels and ceilings explains Glain. "The introduction of high shells and suite doors has empowered designers, providing greater creative freedom and enabling the development of bolder cabins that convey distinct brand identities."

Lighting has emerged as a key element in crafting stunning cabin interiors, with modern aircraft like the A350 and B787 offering opportunities for innovative lighting solutions. This not only enhances the overall ambiance but also provides airlines with unique branding possibilities widely embraced across the industry.

Together, these evolutions underscore a commitment to redefining

air travel standards by seamlessly blending comfort, entertainment, and aesthetics to enhance the passenger experience. Shrivastav however feels that the evolution in aircraft interiors has rather been slow and there is a lot of scope to bring-in technological revolution in cabin interiors. According to him, there is a lot of scope to develop ergonomically designed economy and premium economy seats with a completely new concept. "My company AeroChamp is working on one such innovative concept of seat, which we shall reveal to the industry when our prototype is ready to demonstrate," Dr. Shrivastav adds.

Though seat weight reduction has been the priority for the aircraft cabin interiors industry, which has obviously compromised the passenger comfort; not much has been thought about sustainability and innovation in seat designs, argues Shrivastav. "Why hasn't any one thought of replacing the cushion with an eco-friendly material? Or replacing the plastics in the meal tables, farings and arm caps with a more sustainable and eco-friendly material?" he asks.

With the continuous evolving aircraft interior market and tremendous scope of improvement, it is obvious that the market has a huge potential in coming years. The current indications suggest a sustained growth in commercial aviation volumes and investments in the short and medium term. "The market

is expected to further diversify across numerous relatively small markets," asserts Glain. "Notably, the landscape is witnessing a dichotomy, with basic economy evolving towards a more minimalistic approach, while first class experiences are becoming increasingly opulent," he adds.

With rising competition among different airlines, the cabin appearance and cabin comfort will play a huge role in customers choosing one airline brand over the other. Aviation industry is passing through one of the best times, with airlines placing large orders. "This has more than doubled the order book of aircraft cabin equipment and interiors material manufacturers. Now the challenge is in meeting the demand, as the certification process takes a long time and most established OEMs are over booked beyond their manufacturing capacity for the next 5 years," says Shrivastav.

Although airlines have a larger order book to meet their growth plans, seat and other cabin equipment manufacturers have a long lead time due to capacity constraint resulting in delayed aircraft delivery. With supply chain woes continuing due to geo-political factors and Russia-Ukraine, Israel-Gaza war, this challenge is bound to get worse.

"Over the next decade, I can see a huge growth for the aircraft interiors industry," forecasts Shrivastav. "Established interior OEMs will have to strengthen their supply chain to meet the demand. Aircraft manufacturers will have to encourage innovation and new product development by working closely with the startup companies and onboarding them through product listing in their catalogue," he adds.

The trends highlighted earlier, particularly the emphasis on sustainability, are anticipated to persist and even intensify. "Sustainability is emerging as an urgent priority, and Safran is poised to lead the industry in navigating this transformative shift," Glain says.

All-in-all the commitment to maintaining a forefront position aligns with the broader trajectory of the aviation industry, as it continues to evolve to meet the changing demands of passengers and the imperative of environmental responsibility.

#### **AIRLINE NEWS**



# Azorra handovers first two Embraer E195-E2 aircraft to Royal Jordanian Airlines

Azorra, has delivered the first two Embraer E195-E2 aircraft to Royal Jordanian Airlines at Embraer's facility in São José dos Campos, Brazil, after the agreement announced in May 2023, which includes a total of eight aircraft.

zorra, a global aircraft lessor, cel-Action a global ancial case. the delivery of the first two Embraer E195-E2 aircraft to Royal Jordanian Airlines. The delivery ceremony took place at Embraer's facility in São José dos Campos, Brazil, and was followed by an arrival celebration in Amman, Jordan, hosted by Royal Jordanian Airlines. This delivery is part of a comprehensive agreement announced in May 2023, which includes a total of eight aircraft. The agreement encompasses six aircraft from Azorra's existing backlog with Embraer and an additional two E195-E2 firm orders directly placed by Royal Jordanian Airlines. The successful completion of this transaction underlines the collaboration and commitment of all parties involved.

The Azorra team takes pride in supporting Royal Jordanian's goals, anticipating the environmental and economic advantages that the new E2 aircraft will bring. Evans mentioned that the E2 aircraft not only provide enhanced fuel efficiency and reduced carbon emissions but also

elevate the levels of passenger comfort, contributing to an overall positive passenger experience.

John Evans, CEO and founder, Azorra said, "Our team's longstanding partnership with Royal Jordanian began more than a decade ago. From that Embraer E175, to these next generation E2 aircraft today, we're proud to continue our support of Royal Jordanian, and the airline's fleet modernization and expansion goals. We're confident Royal Jordanian will soon see the environmental and economic advantages of operating these new E2 aircraft, while offering superior levels of passenger comfort."

Azorra is a relationship-driven aircraft lessor that provides comprehensive leasing, financing, fleet transition, and asset management solutions to aircraft investors, financiers, and airline operators worldwide. The company's commitment to customer success and its multi-cultural team with expertise in various aspects of aviation contribute to its global reach. Azorra currently owns and manages a fleet of 100 aircraft on



lease to 30 operators in 23 countries on 5 continents around the world.

Samer Majali, Vice Chairman/CEO, Royal Jordanian Airlines said, "We're looking forward to becoming the first E2 operator in the Middle East, supported by our trusted partners at Azorra. The E2 family of aircraft will support our strategic aims, complementing our larger narrow body aircraft by matching capacity to demand, reducing operating costs and carbon emissions, while delivering a significant upgrade to passenger experience and comfort; underlining our status as the preferred airline in the region."

Royal Jordanian Airlines, established in 1963, serves as the national flag carrier of Jordan. Headquartered in Amman, the airline has been a vital player in connecting Jordan to the world, facilitating international travel. With a mixed fleet comprising 28 aircraft, Royal Jordanian serves a diverse range of destinations across the Middle East, Europe, Asia, and North America. As a member of the Oneworld alliance, Royal Jordanian benefits from a global network of airlines, offering passengers a seamless travel experience with extensive connectivity. The airline is actively working towards expanding its route network to cover 60

The collaboration between Azorra, Royal Jordanian Airlines, and Embraer highlights the importance of strategic partnerships in the aviation industry. It showcases the positive impact such collaborations can have on fleet modernization, sustainability, and the overall advancement of the aviation sector. The successful delivery of the first two E195-E2 aircraft marks a significant achievement for all parties involved, setting the stage for continued growth and success in the years to come.

#### **MRO NEWS**

#### Universal **Avionics and Trimec Aviation** receive FAA approval for **InSight on Falcon** 2000/EX aircraft

Universal Avionics and Trimec Aviation have obtained the FAA STC for the Falcon 2000/EX comprehensive avionics upgrade, equipped with the InSight Flight Display System.

niversal Avionics and Trimec Aviation have successfully obtained the FAA Supplemental Type Certificate (STC) for the Falcon 2000/ EX, equipped with the state-of-the-art InSight Flight Display System. This achievement represents a significant milestone in the aviation industry, marking the collaborative efforts of Universal Avionics and Trimec Aviation in providing a comprehensive avionics upgrade for Dassault Falcon 2000/EX aircraft.

The InSight Flight Display System serves as a cutting-edge solution designed to replace legacy Pro Line 4 avionics, addressing obsolescence issues and enhancing overall operational efficiency and safety. The Falcon 2000/EX InSight installation includes four high-resolution displays and two touchscreen-enabled control displays, ushering in the latest generation of avionics technology. This upgrade introduces brighter displays, increased functionality, and improved situational awareness, offering Falcon 2000/EX operators a modernized cockpit experience.

"This critical milestone opens the door for Falcon 2000/EX operators to modernize their cockpit, upgrading to state of the art capabilities while extending the aircraft's longevity for years to come," said Dror Yahav, CEO, Universal Avionics. "We are thrilled to deliver this sustainable solution for the Falcon 2000/EX in partnership with Trimec Aviation," he further added.



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#### **MRO NEWS**



#### Key Features of the Falcon 2000/EX InSight Flight Display System:

#### 1. Increased Payload and Efficiency:

- ★ The InSight system provides an additional 84 lbs (38.1kg) of payload, contributing to enhanced operational efficiency.
- ★ Enables LPV (Localizer Performance with Vertical Guidance) and RNP (Required Navigation Performance) approaches down to 0.3nm, expanding the range of airports where precision approaches can be performed.
- ★ Significantly reduces flight time with CPDLC (Controller-Pilot Data Link Communications) Departure Clearances.

#### 2. Enhanced Situational Awareness:

- ★ Features a 2nd-generation 3D synthetic vision system, offering an unparalleled level of situational awareness.
- ★ Advanced safety features include real-time information on traffic, weather conditions, and terrain, providing crucial data for decisionmaking during critical flight phases.

#### 3. NextGen Compliance:

★ The InSight system ensures compliance with current and future airspace requirements, including FANS 1/A+, CPDLC, and ATN B1 standards. ★ Provides a future-proof avionics solution, allowing Falcon 2000/EX operators to navigate seamlessly through evolving regulatory landscapes.

#### 4. Simplified Workload:

- ★ High-resolution displays enhance clarity and readability, reducing crew workload and improving overall efficiency.
- ★ Intuitive touch control interactions on two touchscreen-enabled control displays streamline pilot inputs, contributing to a more user-friendly cockpit environment.
- ★ The integrated FMS (Flight Management System) enables graphical flight planning, further simplifying operational procedures.

"It is exciting to see this STC come to fruition, and I thank our entire Fort Worth technical team and our Universal partners for taking us to the STC finish line," said Mike Rabadi, President, Trimec Aviation.

Universal Avionics stands at the forefront of electric aviation innovation, providing forward-fit and retrofit solutions for over 35,000 airplanes and helicopters globally. The company is a leading manufacturer of innovative commercial avionics, with a focus on improving safety and efficiency in business aviation, airline/ cargo operations, and special missions.

"We stand ready to work with Falcon 2000/EX operators to provide this efficient solution as they face irreplaceable CDUs and FMS for the existing Pro Line 4 cockpit," said John Holland, Trimec Aviation General Manager. "This upgrade is a great way to extend the Falcon 2000's operating efficiency, increase its available payload, and enhance pilot safety," he further added.

Trimec Aviation, based in Fort Worth, Texas, is a full aircraft service FAA-certified MRO facility. The company offers a range of aircraft services, including maintenance, avionics installations, engine replacements, paint, interior refurbishments, and more. Trimec Aviation is committed to delivering high-quality solutions and innovative upgrades for the aviation industry.

In conclusion, the successful achievement of the FAA STC for the Falcon 2000/EX InSight Flight Display System represents a pivotal moment in avionics technology. The collaboration between Universal Avionics and Trimec Aviation has resulted in a comprehensive upgrade solution that enhances the capabilities of Falcon 2000/EX aircraft, ensuring compliance with modern airspace requirements and elevating the overall flying experience for operators and passengers alike.



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#### **MRO NEWS**



# **Turkish Technic conducts first A330P2F Conversion**

Turkish Technic has commenced Airbus A330 P2F conversions in collaboration with Elbe Flugzeugwerke GmbH becoming the first MRO company to operate as a conversion house by completing the UFS cut-out and successfully installing the new UFS.

Turkish Technic, a prominent Maintenance, Repair, and Overhaul (MRO) company certified as a Part 145 and Part 21 J&G organization, has initiated Airbus A330 Passenger-to-Freighter (P2F) conversions in collaboration with Elbe Flugzeugwerke GmbH (EFW), a center of excellence for Airbus P2F conversions.

In a groundbreaking move, Turkish Technic becomes the first MRO company to operate as a conversion house in direct collaboration with EFW for A330P2F conversions. The company recently achieved a significant milestone by completing the Upper Frame Shell (UFS) cut-out and successfully installing the new UFS. This key step is integral to the installation of the main deck cargo door. The first conversion is part of a series of P2F conversion projects and is scheduled to be completed by mid-2024.

Mikail Akbulut, CEO, Turkish Technic said, "We are happy to reach a major milestone on the first conversion as we partner with EFW to meet high level



demand in the market. Passenger-to-freighter conversions require a combination of industry-leading expertise, structural skills and operational excellence. Leveraging our extensive knowhow and strong collaboration with our partners and suppliers, we are fully equipped to deliver technical services and innovative solutions. We're looking forward to successfully completing the conversion and providing the best possible performance for our customers with our extensive structural and avionic modification capabilities."

Turkish Technic, an association of Turkish Airlines group companies, stands as

one of the world's leading aviation services providers. The company conducts comprehensive maintenance, repair, overhaul, modification, and reconfiguration services with a highly qualified workforce of 10,500 staff across facilities at Istanbul Ataturk Airport, Sabiha Gokcen Airport, and Istanbul Airport on two separate continents.

In addition to its engineering and maintenance activities, Turkish Technic supports aircraft operators and owners globally through services such as component pooling, design, certification, and production. The company's entry into Airbus A330P2F conversions underscores its commitment to staying at the forefront of the aviation industry by embracing new technologies and addressing market demands. The successful collaboration with EFW positions Turkish Technic as a key player in the growing field of freighter conversions, offering valuable solutions to meet the evolving needs of the aviation market.



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#### **MRO NEWS**



# Malaysia Aviation Group to add 12 Airbus and Boeing jets for fleet upgrade

Malaysia Aviation Group is set to modernize its fleet in 2024, with 12 new aircraft, including its first Airbus 330-900 scheduled to arrive in Q3 2024 including four A330neo and eight Boeing 737-8 aircraft aligning with MAG's strategy.

▲ alaysia Aviation Group (MAG) is set to embark on a comprehensive fleet modernization plan in 2024, welcoming 12 new aircraft, including its first Airbus 330-900 (A330neo) scheduled to arrive in Q3 2024. The expansion includes the introduction of four A330neo and eight Boeing 737-8 aircraft, aligning with MAG's strategy to enhance its network capabilities and provide a superior passenger experience. The fleet modernization plan positions MAG for sustained growth, aligning with industry trends and customer preferences. The adoption of the A330neo and subsequent retrofitting of A350-900s demonstrate a forwardlooking approach, ensuring that MAG's fleet remains at the forefront of aviation technology and passenger comfort.

In August 2022, MAG took a significant step toward its fleet modernization by signing Memoranda of Understanding (MOUs) with Airbus, Rolls-Royce, and Avolon. The agreements outlined the acquisition of 20 A330neo aircraft, slated for delivery through 2028. Of these, ten are directly purchased from Airbus with a simultaneous sale and leaseback arrangement with Avolon, while the remaining ten are leased directly from Avolon. The move underscores MAG's commitment to adopting modern and fuel-efficient aircraft, supporting sus-

tainability goals, and positioning itself for post-pandemic growth.

Datuk Captain Izham Ismail, Group Managing Director, MAG said, "We are excited to induct the first of 20 Airbus A330neo's in Q3 of this year, which will gradually replace our A330ceo fleet and operate to our network across Asia, Oceania, and the Middle East. This expansion is not just about increasing our inventory in numbers but also introducing the first-of-its-kind cabin class, new seats and experiences that prioritises customer safety, comfort and overall satisfaction. We will continue to channel our investments into endeavours that strategically align with the key pillars driving our customer value proposition, namely cabin comfort, in-flight dining, and service delivery of our esteemed cabin crew. We aspire to curate an overall passenger experience that not only meets premium standards but exceeds them, underpinned by our inimitable Malaysian Hospitality."

The A330neo, renowned for its improved operational efficiency, is expected to bring about a 25% reduction in fuel consumption and emissions compared to its predecessor. Beyond environmental benefits, the A330neo promises enhanced passenger comfort and experience. The new aircraft will feature a 1-2-1 configuration in the Col-

lins Aerospace Elevation Business Class, offering individual privacy doors. This marks the first time MAG incorporates such seats in its fleet. The seats will showcase a signature songket motif, a cultural homage to Malaysia's heritage with a contemporary touch. The Business Class seats, providing all-aisle access and a fully flat experience, aim to elevate the premium travel segment.

In total, the A330neo will comprise 297 seats, with 28 in Business Class and 269 in Economy Class, including 24 seats with extra legroom. Additional features include wireless charging pods, ergonomic seat cushions, advanced in-flight entertainment (IFE) solutions, including Kids mode, and Wi-Fi connectivity. These features contribute to a practical and comfortable cabin space, ensuring a seamless travel experience for passengers.

The introduction of the Elevation seats on the A330neo positions Malaysia Airlines as the world's flagship carrier featuring this innovative cabin class on this specific airframe. MAG's commitment to consistent cabin standardization and premium experiences will extend beyond the A330neo. The Group plans to retrofit six A350-900s starting in 2026, aligning them with the A330neo cabin standards. This strategic approach ensures that passengers across different aircraft in the MAG fleet experience a uniform and premium level of service.

As the aviation industry continues to recover from the impact of the global pandemic, MAG's strategic investments in modern and sustainable aircraft underscore its commitment to meeting future challenges and delivering world-class services. The integration of advanced technologies, environmentally friendly features, and a focus on passenger-centric experiences will contribute to MAG's success in a dynamic and competitive market.

In summary, Malaysia Aviation Group's fleet modernization represents a pivotal moment in its ongoing evolution, positioning the airline as a leader in the Asia-Pacific region and beyond. The introduction of cutting-edge aircraft and premium cabin experiences reflects MAG's dedication to excellence and customer satisfaction.

### Airbus and Tata Group to establish the first private helicopter Final Assembly Line in India

Airbus and Tata Group Team Up to Build India's First Private Helicopter Assembly Line under the "Atma Nirbhar Bharat" initiative.

Airbus Helicopters has announced its collaboration with Tata Group to set up a Final Assembly Line (FAL) for helicopters in the nation, which is a significant step toward promoting "Made in India." From its civil range, the FAL will produce Airbus' best-selling H125 helicopter for India and export it to some of its neighboring nations.

As the first private company to establish a helicopter manufacturing plant in India, the FAL will significantly advance the government of India's "Aatma Nirbhar Bharat" (self-reliant India) initiative. Under this agreement,

Airbus Helicopters and Tata Advanced Systems Limited (TASL), a Tata Group affiliate, will establish the facility.

Guillaume Faury, Airbus CEO said, "Helicopters are crucial for nation building. A 'Made-in-India' civil helicopter will not only be a symbol of the confident New India but will also unlock the true potential of the helicopter market in the country. This helicopter final assembly line, which we will build together with our trusted partner Tata, is a reaffirmation of Airbus' commitment to developing the full spectrum of the aerospace ecosystem in India. This will be the second

final assembly line Airbus is building in India after the 'Make in India' C295 military aircraft manufacturing facility in Vadodara, Gujarat."

N. Chandrasekaran, Chairman, Tata Sons, said, "The Tata Group is delighted to set up India's first helicopter assembly facility in the private sector. This facility will have the final assembly line in partnership with Airbus for the world's bestselling Airbus H125 single engine helicopter for the Indian as well as export markets."

The H125, manufactured in India, is unmatched in its class and will encourage helicopter usage there. This



#### **UPCOMING FACILITY**



(Left to Right) Guillaume Faury, Airbus CEO and N. Chandrasekaran, Chairman, Tata Sons at the signing ceremony.

multi-purpose vehicle is expected to transform both passenger and freight transportation, as well as serve several other industries including emergency medical services (HEMS), tourism, law enforcement, disaster relief, and aerial work missions. By delivering last-mile connectivity to isolated locations, the H125 will play a major role in the Government of India's regional connectiv-

ity program, Ude Desh ka Aam Naagrik (UDAN), which would further boost the nation's tourism industry).

The H125 outperforms other helicopters in its class and is the best-selling single-engine helicopter worldwide. Airbus' Ecureuil family of helicopters, which has amassed over 38 million flight hours globally, includes this highly capable and adaptable chop-

per. Extremely hot and high altitude conditions are no match for it, and it can easily adapted for a wide range of missions, such as air ambulance, law enforcement, aerial work, firefighting, rescue, and passenger transport, among many others.

Due to its unique ability to operate in harsh, high-altitude conditions, the H125 is the only helicopter to have made a landing on Mount Everest. Making use of TASL's aerospace and defense expertise, Airbus plans to build a second FAL in India for the production of helicopters. Built in Vadodara by the two companies, the C295 military transport aircraft FAL.

Airbus is expanding its industrial footprint in India through aircraft assembly, component manufacturing, engineering and digital design and development, MRO support, pilot and maintenance training, and academic collaboration to foster human capital. This latest announcement is part of the company's efforts to create a comprehensive aerospace ecosystem in India.

# Jeh Aerospace inaugurates new manufacturing hub

Jeh Aerospace recently inaugurated its manufacturing hub, with a capacity extension of 160,000 sq.ft in Hyderabad with USD 2.75 million seed funding from General Catalyst through a strategic partnership.



Jeh Aerospace is co-founded by Tata Boeing Aerospace ex-Chief Operating Officer Vishal R Sanghavi and Venkatesh Mudragalla, ex-senior executive at Tata Sikorsky Aerospace Ltd.

Jeh Aerospace, an aerospace and defence manufacturing startup from India recently inaugurated its manufacturing hub, with a capacity extension of 160,000 square feet in Hyderabad. This

inauguration came on the backdrop of the company securing USD 2.75 million seed funding from General Catalyst through a strategic partnership.

In addition to General Catalyst's invest-

ment, the seed funding round for Jeh Aerospace also saw participation from industry veterans. Notably, Airbus India's former CEO and MD, Dwarakanath Srinivasan, and the former president of Boeing India, Pratyush Kumar, contributed as angel investors.

Jeh Aerospace is co-founded by Tata Boeing Aerospace ex-Chief Operating Officer Vishal R Sanghavi and Venkatesh Mudragalla, ex-senior executive at Tata Sikorsky Aerospace Ltd, Jeh Aerospace offers manufacturing, engineering, and supply chain management solutions to the global aerospace and defense industry at all tiers, from OEMs to tooling manufacturers.

The manufacturing hub aims to reshape the supply chain experience for global aerospace customers with vetted supplier networks that meet or exceed global quality standards. The facility aims to create a more robust and adaptable aerospace supply chain and work towards enhancing the industry's capabilities and resilience.

#### **UPCOMING FACILITY**

#### Airbus inaugurates first Airbus Lifecycle Services Centre in China

The Airbus Lifecycle Services Centre has commenced operations in Chengdu, China offering a comprehensive range of lifecycle management services for aircraft, covering activities from parking and storage to maintenance, upgrades, conversions, dismantling, recycling, and the controlled distribution of used parts.

Airbus Lifecycle Services Centre (ALSC) in a significant step towards advancing sustainable aerospace practices has commenced operations in Chengdu, China. This state-of-the-art centre is the first of its kind, offering a comprehensive range of lifecycle management services for aircraft, covering activities from parking and storage to maintenance, upgrades, conversions,

dismantling, recycling, and the controlled distribution of used parts. The ALSC in Chengdu is certified by both the European Union Aviation Safety Agency (EASA) and the Civil Aviation Administration of China (CAAC), ensuring compliance with international safety and regulatory standards.

The centre occupies a vast surface area of 717,000 square meters and

boasts a storage capacity for 125 aircraft. As it ramps up operations between the commencement and 2025, it is expected to directly employ up to 150 professionals. The main buildings have already obtained LEED (Leadership in Energy and Environmental Design) certification, reflecting a commitment to reducing environmental impacts associated with operations at the ALSC site.

Cristina Aguilar, SVP Customer Services, Airbus said, "I'm glad to see the Airbus Lifecycle Services Centre enter into service in Chengdu. It echoes our purpose to pioneer sustainable aerospace and shows our approach to environmental responsibility across the entire aircraft lifecycle. Our service centre is a great example of Chinese-European cooperation in the development of the circular economy for the aviation industry."

The ALSC is positioned as a one-stop shop for the entire aircraft lifecycle,



#### **AGREEMENTS**



emphasizing Airbus's dedication to environmental responsibility and sustainable practices across all stages of an aircraft's operational life. From storage and maintenance to recycling, the centre aims to optimize the use of resources and contribute to minimizing the environmental footprint of aviation.

The centre holds certifications from both EASA and CAAC, ensuring adherence to international safety and regulatory standards. ALSC covers a spectrum of activities, including aircraft storage, maintenance, upgrades, conversions, dismantling, recycling, and the distribution of used parts. The facility spans 717,000 square meters with a storage capacity for 125 aircraft. It is expected to gradually increase its workforce, employing up to 150 professionals directly. The main buildings have obtained LEED certification, indicating a commitment to sustainable construction practices and reducing environmental impacts.

ALSC unites Airbus, Tarmac Aerosave,

and the city of Chengdu, along with Airbus company Satair. Tarmac Aerosave contributes over 15 years of expertise in efficient aircraft storage, dismantling, and recycling. Satair, located in the same centre, will acquire aging aircraft, trade, and distribute used parts, completing the full scope of lifecycle services. A significant portion of the aircraft stored at the centre is anticipated to return to service after storage and upgrades, contributing to the reusability of assets. The unique Tarmac Aerosave process during dismantling is designed to recover around 90 percent of the aircraft weight.

The Airbus Lifecycle Services Centre in Chengdu represents a pioneering initiative in aligning aerospace practices with sustainability goals. As a collaborative effort, it emphasizes the potential for circular economy principles in the aviation sector and sets a precedent for responsible practices in the industry.

# Epsilon Aerospace and TimeTooth Set to Transform Indian Aviation with Innovative Seating Solutions

Epsilon Aerospace has signed a Memorandum of Understanding (MoU) with TimeTooth, marking a historic collaboration in the development of indigenous seating systems for passenger aircraft in India.

Epsilon Aerospace has been actively engaged with TimeTooth to design and manufacture seat covers and cushions for their new seating product since 2021. TimeTooth has successfully pioneered indigenous seating solutions, specifically tailored for passenger aircraft, making them the first company in India to achieve this milestone.

The collaboration between Epsilon Aerospace and TimeTooth has been instrumental in conceptualizing and designing soft furnishings for the revolutionary seats, developed initially for Dornier Aircraft. This partnership showcases a remarkable synergy between



cutting-edge design and manufacturing capabilities, setting new standards for aviation comfort.

Naveen Chawla, CEO at Epsilon Aerospace said, "This partnership signifies a leap forward in India's aviation ca-

pabilities. We are proud to join forces with TimeTooth in creating a revolutionary seating experience for passengers. The MoU not only strengthens our ties with TimeTooth but also positions Epsilon Aerospace as a key player in the global soft furnishing market for aircraft seats."

The MoU signing is poised to strengthen the business ties between Epsilon Aerospace and TimeTooth, opening avenues for deeper collaboration in the future. Epsilon Aerospace is proud to contribute to the launch of TimeTooth's innovative seats at the Wings Air Show 2024.

Amitav Chaudhuri, Director at Time-Tooth said, "TimeTooth's Indian seats offer better performance, innovative customization, and lower lifetime costs. We are banking on Epsilon Aerospace to contribute to this vision via their expertise in the soft furnishings."

The seats, adorned with covers and cushions manufactured by Epsilon Aerospace, mark a historic moment for both companies as they unveil a locally produced solution for aircraft seatings, a first in the history of Indian aviation.

#### **AGREEMENTS**

### DAE leases 10 Boeing 737-8 aircraft to Turkish Airlines

Dubai Aerospace Enterprise has finalized an agreement with Turkish Airlines for the lease of 10 new Boeing 737-8 aircraft, scheduled for delivery in 2025 with modern, fuel-efficient aircraft to meet its growing fleet requirements.

Dubai Aerospace Enterprise (DAE) Ltd has finalized an agreement with Turkish Airlines for the lease of 10 new Boeing 737-8 aircraft, scheduled for delivery in 2025. This deal strengthens the existing relationship between DAE and Turkish Airlines, providing the carrier with modern, fuel-efficient aircraft to meet its growing fleet requirements.

DAE Capital, the aircraft leasing division of DAE, manages and owns a diverse fleet of approximately 500 Airbus, ATR, and Boeing aircraft with a combined fleet value exceeding US\$17

billion. The company's commitment to delivering modern, efficient, and technologically advanced aircraft aligns with the evolving needs of its airline customers.

The 10 Boeing 737-8 aircraft from this lease agreement will contribute to Turkish Airlines' efforts to enhance its fleet with the latest technology and fuel-efficient options. The Boeing 737 MAX family is known for its advanced features, including improved fuel efficiency, reduced carbon emissions, and enhanced passenger comfort.

Firoz Tarapore, Chief Executive Officer, DAE said, "We are delighted to further deepen our already strong and long-term relationship with Turkish Airlines and to provide them a solution to their growing fleet requirements with these new technology, fuel efficient aircraft. We thank Turkish Airlines for their ongoing trust in DAE and wish them much success with their new fleet additions."

DAE, headquartered in Dubai, is a globally recognized aviation services corporation with two primary divisions: DAE Capital and DAE Engineering. DAE serves over 170 airline customers in more than 65 countries, operating from strategic office locations in Dubai, Dublin, Amman, Singapore, Miami, New York, and Seattle.

DAE Capital, the award-winning aircraft lessor, continues to play a significant role in the aviation industry by offering a comprehensive and diverse range of aircraft leasing solutions. DAE



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#### **AGREEMENTS**



Engineering, on the other hand, provides Maintenance, Repair, and Overhaul (MRO) services to customers in Europe, the Middle East, Africa, and South Asia from its state-of-the-art facility in Amman, Jordan. The MRO facility is authorized to work on 15 aircraft types and holds regulatory approvals from over 25 aviation authorities globally.

This leasing agreement reflects the continued growth and collaboration within the aviation industry, with DAE contributing to the modernization and expansion plans of Turkish Airlines through the provision of advanced and efficient Boeing 737-8 aircraft.

### TrueNoord leases two Embraer E175 aircraft to Air Canada

TrueNoord has purchased two Embraer E175 jets on lease with Air Canada completing the acquisition of ten Embraer aircraft from Nordic Aviation Capital initially announced in January 2023 to serve over 70 destinations in Canada and the U.S.

TrueNoord, a specialist regional aircraft lessor, has expanded its portfolio with the purchase of two Embraer E175s on lease with Air Canada. This transaction completes the acquisition of ten Embraer aircraft from Nordic Aviation Capital (NAC), initially announced in January 2023. The E175s are already in operation across the Air Canada Express network, serving over 70 destinations in Canada and the United States.

TrueNoord's strategic acquisition of these Embraer E175s aligns with its commitment to serving lessees with strong operational performance and extensive route networks. The lessor aims to build a robust and long-term relationship with Air Canada, contributing to the airline's regional connectivity and operational excellence.

Garry Topp, Sales Director, Americas, TrueNoord said, "We are very pleased to further expand our footprint by adding two Air Canada operated E175s to our portfolio. These aircraft represent the first E175s in our fleet and our second lessee in the country. Air Canada is a respected flag carrier and the country's largest airline, known for its strong op-



erational performance and comprehensive route network. We are very proud to welcome them to the TrueNoord lessee family and look forward to building a strong and long-term relationship with their team."

In December 2023, TrueNoord announced a further portfolio trade, acquiring 11 aircraft from NAC. This move will increase its fleet to 87 turboprops and regional jets. The transaction includes new lessee airlines in Australia and Europe, as well as additional aircraft for existing North American airline

customers, including Air Canada. The integration of three more E175s leased to Air Canada is expected to be completed in the first quarter of 2024.

The regional aircraft leasing market continues to be dynamic, with True-Noord strategically positioning itself to meet the growing demand for efficient and versatile regional jets. The addition of Embraer E175s to its portfolio underscores TrueNoord's commitment to offering a diverse range of aircraft to meet the needs of regional carriers worldwide.

### Honeywell partners with Acelen Renewables for SAF Production

Acelen Renewables has selected Honeywell's Ecofining technology for SAF production with a 20,000 barrels daily target at Acelen's Bahia plant being prepared from a mixture of trash and inedible seed oils.

celen Renewables has Achosen Honeywell's Ecofining technology to enable the efficient production of sustainable aviation fuel (SAF) and renewable diesel, with a daily target of 20,000 barrels. At Acelen's plant in Bahia, Brazil, the fuels will be prepared from a mixture of trash and inedible seed oils. With this deal, Acelen Renewables is now the fifty-first location to licence Honeywell's technology for renewable fuels.

Ken West, president and CEO of Honeywell Energy and Sustainability Solutions said, "The dramatic growth in demand for renewable fuels technology illustrates that fuel producers are accelerating adoption of solutions to help meet ambitious decarbonization goals. Our 50th license is testament to Honeywell's leadership in renewable fuels. The milestone follows back-to-back years of solution launches that harness ethanol and e-methanol—to round out one of the largest ranges of feedstock processing technologies on the market."

Waste fats, oils, and greases can be converted into renewable fuel and SAF with Honeywell's Ecofining technology, which was created in partnership with Eni SpA and requires little capital. When used in combination with regular jet fuel, SAF can cut greenhouse gas emissions from conven-

tional fossil fuels by up to 80%.1 Since it was first used in 2013 for the production of renewable diesel and in 2016 for the production of SAF, e-fining has demonstrated its efficacy in lowering carbon dioxide (CO2) emissions, especially in the aviation industry.

Marcelo Cordaro, COO of Acelen Renewables said. "The addition of Honeywell's Ecofining process is essential for us to meet our goal of producing one billion liters of Renewable Diesel and Sustainable Aviation Kerosene (SAF) per year from 2026 onwards, which will make our company one of the largest biofuel producers in the world. Through our "fully sustainable" project: economically, socially and environmentally responsible, we will show the world Brazil's full capacity to produce the fuel of the future."

Acelen Renewables is the newest company to licence Honeywell's technology for renewable fuels, joining a list that already includes BP, CVR Energy, Diamond Green Diesel, Eni, Repsol, Total Energies, and World Energy. Eight of the 50 licences are currently in use, and by 2030, more than 40 licenced plants are expected to be up and running. When operating at maximum efficiency, the combined capacity of these plants to produce renewable fuels will be more than 500,000 barrels per day.



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#### SUSTAINABLE AVIATION

### Ryanair signs LOI with Enilive for SAF supply at select Italian airports

Ryanair and Enilive, have signed a LOI for the supply of 100,000 tons (33 million gallons) of SAF at selected Ryanair airports between 2025 and 2030 marking a step in Ryanair's Pathway to Net Zero decarbonization by 2050.



Ryanair, Europe's leading airline, and Enilive, a company wholly owned by Eni, have signed a Letter of Intent (LOI) for the long-term supply of Enilive's sustainable aviation fuel (SAF) at selected Ryanair airports across Italy. This collaboration marks a significant step in Ryanair's Pathway to Net Zero by 2050 decarbonization strategy. The agreement with Enilive provides Ryanair access to up to 100,000 tons (33 million gallons) of SAF between 2025 and 2030.

SAF is a vital solution for contributing to the decarbonization of aviation in the coming decades. Currently, SAF constitutes only a small fraction of global fuel usage. Enilive processes waste feedstock, such as used cooking oil, animal fats, and agro-food industry residues, in its Italian biorefineries to produce Eni Biojet, a SAF containing 100% biogenic components. Eni Biojet is suitable for blending with conventional jet fuel by up to 50%.

Thomas Fowler, Director of Sustainability, Ryanair said, "Increasing the

production of SAF is a key challenge that the industry faces over the coming years. Partnering with an industry leader like Eni will help Ryanair achieve our ambitious goal of using 12.5% SAF by 2030 and Net Zero emissions by 2050. Eni is a key supplier in our largest market, Italy, and their success in producing SAF will play a significant role as our Group grows to carry 300m passengers p.a. by 2034."

The LOI between Ryanair and Enilive represents a strategic partnership that supports sustainable aviation practices and contributes to the industry's broader decarbonization efforts. Ryanair Holdings plc is Europe's largest low-cost airline group. It operates over 1,800 flights daily from 81 bases connecting 240 destinations in 40 countries. The airline group consists of Ryanair DAC, Ryanair UK, Buzz, and Malta Air.

Stefano Ballista, CEO, Enilive said, "We are glad to launch an agreement with such a relevant player as Ryanair right after European Union's ReFuelEU regulations that aims to increase the adoption of SAFs by 2050. Enilive plans to boost its biorefining capacity to over 5 million tonnes/year by 2030 and it is focused in developing new projects to expand its biorefining capacity: biofuels can play a relevant role in decarbonizing mobility, including its hard-to-abate sectors such as aviation. The plants and the technologies we have developed over the last decade enable Enilive to produce the necessary amounts of SAF to meet the needs of companies as Ryanair and the requirements of the EU regulations."

Eni S.p.A. is an Italian multinational energy company operating in the oil, natural gas, electricity, and renewable energy sectors. Enilive, wholly owned by Eni, is a company specializing in biofuels and the production of sustainable aviation fuel (SAF). Enilive's focus on biorefining capacity expansion aligns with the increasing demand for biofuels in various sectors. Eni's commitment to sustainable practices encompasses its broader strategy to address climate change and promote a low-carbon future.

### Embraer Services & Support signs MoU with Saudia Technic for MRO and training

The Embraer Services & Support and Saudia Technic MoU outlines collaboration in maintenance and training capabilities, with a focus on the E2 jets family and Executive Aviation maintenance.

Embraer Services & Support has signed a Memorandum of Understanding (MoU) with Saudia Technic, a key aviation maintenance, repair, and overhaul (MRO) provider and a subsidiary of Saudia Group. The agreement, announced at the World Defense Show 2024 in Riyadh, outlines collaboration in maintenance and training capabilities, with a focus on the E2 jets family and Executive Aviation maintenance.

The MoU signifies a commitment to enhance cooperation in the field of commercial aviation, specifically targeting Embraer's E2 jets family and Executive Aviation maintenance. Saudia Technic, with its extensive experience and capabilities in MRO services, aims to contribute to the growth and advancement of the aerospace industry in Saudi Arabia.

Captain Fahd Cynndy, CEO of Saudia Technic said, "Through this Memorandum of Understanding, we embark on a journey of collaboration and growth. The aerospace industry in Saudi Arabia is thriving, and together with Embraer Services & Support, we are poised to make remarkable advancements. This partnership will propel us towards new horizons, shaping the future of commercial aviation and paving the way for excellence in maintenance."

Saudia Technic, with its rich legacy dating back to the 1950s, has established itself as a prominent player in the MRO sector. With over 5,600 highly qualified employees and a global network of more than 100 locations, Saudia Technic offers comprehensive services in line, base, components, and engines across the aviation industry.

Carlos Naufel, President and CEO, Embraer Services & Support, said, "We are very pleased to sign a broad Memorandum of Understanding with Saudia Technic. The Kingdom of Saudi Arabia has one of the fastest-growing aerospace industries worldwide, and Embraer Services & Support is well-positioned to advance in the region by working in partnership with Saudia Technic."

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#### TRAINING



With over 5,600 employees and a global network of more than 100 locations, Saudia Technic offers comprehensive services in line, base, components, and engines across the aviation industry.

headquartered in Brazil, operates in the Commercial and Executive aviation, Defense & Security, and Agricultural Aviation sectors. The company is known for designing, developing, manufacturing, and marketing aircraft and systems, with a significant focus on customer support and services after sales.

Embraer has delivered over 8,000 aircraft since its founding in 1969 and is a leading manufacturer of commercial jets up to 150 seats. The company is also a major exporter of high-value-added goods in Brazil. With industrial units, offices, service and parts distribution centers spread across the Americas, Africa, Asia, and Europe, Embraer maintains a strong global presence.

#### DAE and Ansett Aviation Training sign MoU for pilot training

Dubai Aerospace Enterprise has signed a MoU with Ansett Aviation Training to promote the UAE as an aviation hub with AAT inaugurating a training facility for pilots and flight crews across the Middle East, Africa, India, and beyond.

Dubai Aerospace Enterprise (DAE) Ltd has entered into a Memorandum of Understanding (MoU) with Ansett Aviation Training (AAT), a global operator of pilot simulator training centers based in Australia. The MoU aims to promote the United Arab Emirates as a leading global aviation service provider and strengthen collaboration between DAE and AAT by supporting each other's customer bases.

AAT recently inaugurated a state-of-the-art training facility in the Mohammed bin Rashid Aerospace Hub at Dubai South, strategically located near Dubai World Central Airport. The facility offers world-class training to pilots and flight crews across the Middle East, Africa, India, and beyond. The facility is currently equipped with an EASA-certified ATR 72-600 full flight simulator, and AAT plans to expand its training capabilities to include Airbus A320.

Firoz Tarapore, Chief Executive Officer, DAE said, "We are excited to announce



this co-operation with AAT, which will provide DAE's airline customers with pilot training infrastructure for ATR 72-600 and Airbus A320 aircraft types at AAT's new training center in Dubai. DAE's global network of customers and AAT's international network of training centers will provide both companies an opportunity to enhance their product offerings to current and future customers."

DAE is a top-ten global aircraft lessor with a fleet of nearly 500 aircraft, including 67 ATR 72-600 aircraft and 168 Airbus A320 family aircraft. Head-quartered in Dubai, DAE has over three decades of leasing experience, provid-

ing customized and comprehensive solutions to airlines worldwide.

The collaboration between DAE and AAT is expected to strengthen the training capabilities offered to current and future customers. With DAE's global network and AAT's international training centers, the companies aim to enhance their positions in the aviation services sector.

Mark Delany, Chief Executive Officer, AAT said, "Ansett Aviation Training is excited to co-operate with DAE, marking a significant milestone in our global expansion. Our new, advanced training center in Dubai South's Mohammed bin Rashid Aerospace Hub, showcases our dedication to top-tier aviation training, featuring our state-of-the-art EASA certified ATR 72-600 simulator and upcoming Airbus A320 capabilities. This collaboration provides an important strategic opportunity to support DAE clients across the Middle East, Africa, India, and beyond, and promoting Dubai as a key player in global aviation services."

Dubai Aerospace Enterprise (DAE) Ltd operates as a globally recognized aviation services corporation with two divisions: DAE Capital and DAE Engineering. DAE Capital is an award-winning aircraft lessor with a fleet value exceeding US\$17 billion, serving over 170 airline customers globally. DAE Engineering provides MRO services to customers in Europe, the Middle East, Africa, and South Asia.











### Bye Aerospace and Skyborne Airline Academy sign LoI for 30 more eFlyer Aircraft

Bye Aerospace has signed an LoI for an additional to deliver 30 eFlyer aircraft for Skyborne Airline Academy bringing their total commitment to 40 eFlyer 2 and eFlyer 4 aircraft with the order book now totaling 889 units for \$570 million.

Bye Aerospace has signed a Letter of Intent for an additional to deliver 30 eFlyer aircraft for Skyborne Airline Academy, one of the world's premier pilot training schools, bringing their total commitment to 40 aircraft. This latest order contributes to the success of Bye Aerospace, with the eFlyer 2 and eFlyer 4 aircraft order book now totaling 889 units, valued at an estimated \$570 million. The total order book for Bye Aerospace's complete aviation line now exceeds \$1.4 billion.

Bye Aerospace's eFlyer series incorporates cutting-edge all-electric propulsion technology and a purpose-designed airframe, offering up to 80% lower flight operating costs compared to traditional trainers. This cost efficiency allows top-tier flight training organizations like Skyborne to deliver superior training without the burden of excessive fuel expenses, with the added benefits of zero carbon emissions, no lead, and minimal noise. The innovative design, advanced aerodynamics, and a robust yet lightweight composite structure ensure unmatched performance, safety, and efficiency.

Lee Woodward, CEO, Skyborne Airline Academy said, "Our partnership with Bye Aerospace reflects the pioneering spirit of Skyborne and our constant drive to redefine pilot training for the better. By investing in Bye's eFlyer aircraft, we will reduce our impact on the environment and support our airline partners with their sustainability goals. We're proud to expand our order arrangement and look forward to seeing the eFlyer at Skyborne."

The company is making significant progress in the electric aircraft program, with plans to produce serial number 001 within the next twelve months, followed by full FAA certification in 2025, with customer deliveries immediately following.

Rod Zastrow, President, Bye Aerospace said, "Skyborne is an internationally respected flight school, and this additional order is another tremendous endorsement of our product. It builds on the excellent momentum we've gained in 2023. We are thrilled to kick off 2024 alongside the aviation training leader Skyborne."

Bye Aerospace, headquartered in Denver, Colorado, is a leading innovator in electric aviation. The eFlyer series of fixed-wing aircraft is designed to disrupt general aviation, starting with the crucial aviation training sector, featuring FAA-certified, zero-emission, highly cost-effective, low-drag, low-noise, intelligent, and safety-enhanced aircraft.

Skyborne Airline Academy, based in Vero Beach, Florida, United States, and Gloucestershire Airport in the United Kingdom, is a modern airline training academy established by industry experts. It brings a fresh approach to airline pilot training, combining tried and tested methods with the latest technology to assess competence, suitability, aptitude, and resilience. Skyborne aims to recruit the best candidates, minimizing additional training, reducing failure rates, and providing airlines with better pilots and cabin crew.



## Embraer partners with Mahindra for the C-390 Millennium aircraft project of the Indian Air Force

Embraer Defense & Security and Mahindra have signed an MoU to fulfil the acquisition of the C-390 Millennium multi-mission aircraft by the Indian Air Force identifying the next steps for the MTA program.

Embraer Defense & Security and Mahindra have formalized their partnership through a Memorandum of Understanding (MoU) to jointly fulfil the acquisition of the C-390 Millennium multi-mission aircraft by the Indian Air Force. The MoU, signed at the Embassy of Brazil in New Delhi, marks a significant step in enhancing defense cooperation between Brazil and India. Embraer and Mahindra will collaborate with the Indian Air Force to identify the next steps for the MTA program.

They will also engage with the local aerospace industry in India to develop an industrialization plan for the project. The partnership aligns with the Indian government's vision of self-reliance in defense manufacturing under the Make in India initiative.

Mahindra Defence Systems, a 100% owned subsidiary of Mahindra focusing on armored transport and security-related products, signed the MoU alongside Embraer Defense & Security.

Embraer has a longstanding presence in India across defense, commercial aviation, and executive aviation. The C-390 Millennium Day held in New Delhi in August 2023 demonstrated Embraer's commitment to engaging with the local aerospace industry.

"We are honored to announce this MoU with Mahindra . India has a diverse and strong defense and aerospace industry and we have chosen Mahindra as our partner to jointly pursue the MTA program" said Bosco da Costa Junior, President & CEO, Embraer Defense & Security. "India is a key market for Embraer and we fully support India's ambitions for 'Atmanirbhar Bharat'. We see this partnership as a symbol of strengthening relations between Brazil and India and a way to foster Global South cooperation," he further added.

The C-390 Millennium is a multi-mission tactical transport aircraft known for its unmatched mobility, high productivity, operating flexibility, and cost-effectiveness. Since entering service with the Brazilian Air Force in 2019 and subsequently with the Portuguese Air Force in 2023,



#### DEFENCE





■ (L to R): N Raveeswaran, CEO - A&D Strategic Business, Mahindra Bosco da Costa Junior, President & CEO, Embraer Defense & Security Vinod Sahay, President Aerospace & Defence Sector and Member of Group Executive Board, Mahindra Frederico Lemos, Chief Commercial Officer, Embraer Defense & Security.

the aircraft has demonstrated exceptional performance, accumulating over 11,500 flight hours.

The C-390 Millennium, with a payload capacity of 26 tonnes and a cruising speed of 870 km/h (470 knots), can perform a variety of missions, including cargo and troop transport, medical evacuation, search and rescue, aerial firefighting, and humanitarian missions. Its versatility is evident in its ability to operate on temporary or unpaved runways, making it suitable for a wide range of environments.

Vinod Sahay, President Aerospace & Defence Sector and Member of Group Executive Board, Mahindra said, "We are proud to start this partnership with Embraer, a company that is known for its engineering excellence and a unique portfolio of aircraft and systems. The C-390 Millennium is the most advanced military airlifter in the market, and we believe that this partnership will not only bolster the operational prowess of the Indian Air Force, but also provide an efficient industrialization solution that aligns seamlessly with the objectives of

Make in India," he further added.

The Full Operational Capability status achieved by the C-390 Millennium in 2023 attests to its capability to execute all designated missions. The aircraft has garnered international interest, with Brazil, Portugal, Hungary, the Netherlands, Austria, the Czech Republic, and South Korea selecting it for their air forces.

The collaboration between Embraer and Mahindra on the C-390 Millennium aims to bring cutting-edge aerospace and military transport technology to India. The partnership will explore the potential for India to become a regional hub for the C-390 aircraft, contributing to the nation's strategic defense capabilities and fostering technological advancements in the aerospace sector.

In conclusion, the Embraer-Mahindra collaboration represents a significant milestone in defense cooperation, offering India access to advanced military transport capabilities and reinforcing the principles of self-reliance in defense manufacturing. The partnership aligns with India's broader vision of enhancing its defense capabilities through indigenous production and technological collaboration with global leaders in the aerospace industry.

#### DEFENCE

# BAE Systems secures \$92 million contract to support U.S. Navy ATC & Landing Systems

Under the five-year U.S. Navy NAWCAD contract valued at \$92 million, BAE Systems will provide fleet services, technical support, and operational software development and maintenance.

B AE Systems has been awarded a five-year indefinite-delivery/indefinite-quantity contract valued at \$92 million by the U.S. Navy Naval Air Warfare Center Aircraft Division (NAWCAD). The contract is a follow-on to continue supporting Air Traffic Control & Landing Systems Operations Onboard Navy Ship and Shore Based Sites (AOOSS).

Under the contract, BAE Systems will provide fleet services, technical support, and operational software development and maintenance. The support will be directed toward various air traffic control and landing systems used by the U.S. Navy, U.S. Marine Corps, U.S. Coast Guard, Military Sealift Command, and international customers.

Lisa Hand, vice president and general manager for Integrated Defense Solutions, BAE Systems said, "Since 1993, we have been providing technical and engineering services for AOOSS worldwide. For those 30 years, we have worked closely with our customers to bolster their readiness—a legacy we're very proud of. We're equally proud to continue to support this mission moving forward."



The work under the contract will be carried out in multiple locations, including Great Mills, St. Inigoes, and Patuxent River, Maryland; Chesapeake, Virginia; and San Diego, California.

The renewed contract underscores BAE Systems' commitment to ensuring the operational efficiency and readiness of air traffic control and landing systems critical for naval and maritime operations. The company's extensive experience and expertise in providing technical and engineering services for AOOSS make it a key partner in supporting these essential capabilities for the U.S. Navy and its allied forces.





### RTX's Collins tests 80 kW cooling capacity on EPACS for F-35 fighter jet

Raytheon Technologies' Collins Aerospace business has demonstrated 80 kilowatts of cooling capacity for its EPACS positioning itself as a replacement for the current PTMS in the Lockheed Martin F-35 Lightning II, supporting modernization.

Raytheon Technologies' Collins
Aerospace business has achieved a
significant milestone by demonstrating
80 kilowatts of cooling capacity for its
Enhanced Power and Cooling System
(EPACS). This achievement is part of
Collins Aerospace's efforts to position
EPACS as a replacement for the current
power and thermal management system
(PTMS) in the Lockheed Martin F-35
Lightning II, with a focus on supporting
modernization and future upgrades for
the aircraft.

EPACS aims to more than double the F-35's current cooling capability, addressing the limitations of the existing PTMS, which is considered overtasked, leading to increased wear on the engine. The Government Accountability Office has highlighted the challenges faced by the F-35's cooling system,

necessitating an upgrade to meet the demands of additional mission systems and emerging threats.

"The F-35 is a mainstay of allied forces around the world," said Henry Brooks, president, Power & Controls, Collins Aerospace. "In order to modernize the platform with advanced systems to counter emerging threats, a significantly enhanced cooling capability is required. Through its more efficient thermodynamic cycle, EPACS can deliver the increased cooling the F-35 needs and help extend the life of the aircraft for decades to come," he further added.

The F-35 Joint Program Office recently posted a Request for Information (RFI) with an expanded PTMS cooling capacity objective of 80 kilowatts. EPACS is positioned as a mature, low-risk solution, leveraging proven technologies

and compatibility with all three F-35 platform variants to minimize integration and operational risks.

"Our service members urgently need an upgraded cooling and management system on the F-35 to keep pace with continuous modernization of the aircraft's capabilities," said Joe Courtney (CT-02), Rep, U.S. "The EPACS 80 kW cooling capacity achievement demonstrates a critical milestone that will rapidly enable vital F-35 warfighting capabilities while resulting in substantial cost savings to the taxpayer."

Collins Aerospace, a business unit of Raytheon Technologies, is a global leader in providing integrated solutions for the aerospace and defense industry. With a focus on advancing technologies, the company is committed to delivering sustainable and connected aviation, passenger safety, mission success, and space exploration.

Raytheon Technologies, the world's largest aerospace and defense company, comprises industry-leading businesses such as Collins Aerospace, Pratt & Whitney, and Raytheon. With a global workforce of over 185,000 employees, the company is dedicated to pushing the limits of technology to redefine how we connect and protect the world. In 2023, Raytheon Technologies reported sales of \$68.9 billion and is headquartered in Arlington, Virginia.



## Lockheed Martin handovers 75th APY9 Radar for Northrop Grumman's E-2D advanced hawkeye aircraft

Lockheed Martin has delivered the 75th APY-9 radar to serve as the primary sensor for the E-2D Advanced Hawkeye, contributing to the aircraft's revolutionary sensor capability and providing the U.S. Navy with information dominance.

ockheed Martin, as a contractor for Northrop Grumman on the U.S. Navy's E-2D Advanced Hawkeye program, has successfully delivered the 75th APY-9 radar. This milestone underscores the continued success and dominance of the E-2D Advanced Hawkeye platform, with more Hawkeyes built and delivered than any other airborne early warning (AEW) platform globally.

The APY-9 radar serves as the primary sensor for the E-2D Advanced Hawkeye, contributing to the aircraft's revolutionary sensor capability and providing the U.S. Navy with information dominance. Lockheed Martin's delivery of the 75th

APY-9 radar reinforces the platform's legacy of delivering agile deterrence for enhanced 21st-century security.

The E-2D Advanced Hawkeye is recognized for its technological advancements, with the APY-9 radar playing a pivotal role in its capabilities. As the U.S. Navy's "eyes of the fleet," the E-2D simultaneously monitors air, land, and sea, providing crucial information for operational awareness. The radar ensures continuous surveillance, offering a significant advantage for carrier-based operations.

"As the primary sensor for the E-2D, the APY-9 radar has a long legacy of providing agile deterrence for enhanced 21st century security," stated Chandra Marshall, vice president of Radar & Sensor Systems business, Lockheed Martin. "Our primary focus is to bring our military men and women home safely, and the APY-9 sets that bar for all other AEW radars," he further added.

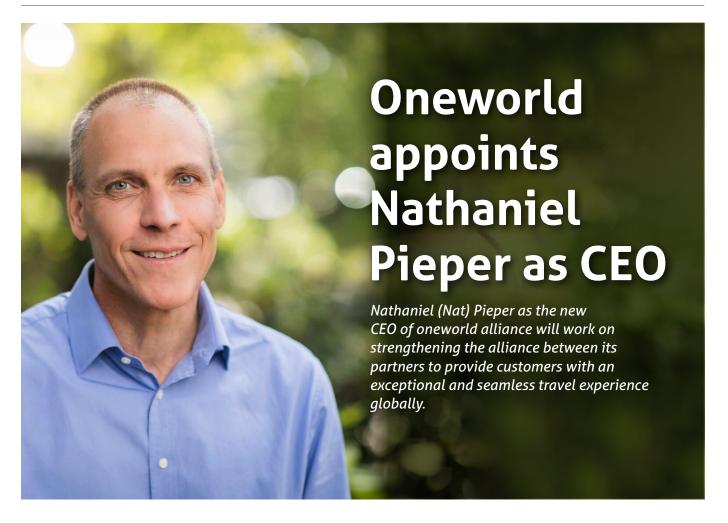
The U.S. Navy has shown strong support for the E-2D Advanced Hawkeye program, funding 80 out of 86 aircraft in the current program of record. Additionally, international demand for the platform is evident, with Japan purchasing 18 E-2D Hawkeyes, and France acquiring three. The APY-9 radar is expected to remain in production into the late 2020s, with ongoing modernization and sustainment activities extending into the 2040s.

Lockheed Martin has been a long-standing collaborator on the Northrop Grumman-built E-2D program for over two decades. The E-2D Advanced Hawkeye platform delivers critical and actionable data, enabling decision dominance for joint forces and first responders. The radar's advanced features provide military forces with the necessary situational awareness, reducing the time between initial awareness and active engagement.

Leveraging its broad and deep experience in developing advanced radar solutions, Lockheed Martin specializes in high-performing, high-reliability radar systems. These systems cover advanced early warning, counter-target acquisition, situational awareness, and integrated air and missile defense. Lockheed Martin's radar systems are designed for versatility, operating in all environments, and are deployed globally. The company's radars are trusted by more than 45 nations on six continents.

In conclusion, Lockheed Martin's delivery of the 75th APY-9 radar marks a significant achievement in the ongoing success of the E-2D Advanced Hawkeye program. The platform's advanced capabilities, coupled with Lockheed Martin's expertise in radar technology, reinforce the aircraft's position as a crucial asset for naval operations, providing information dominance and enhancing the security posture of the United States and its allies.

#### EXECUTIVES IN FOCUS



The oneworld alliance has appointed Nathaniel (Nat) Pieper, currently Senior Vice President of Fleet, Finance, and Alliances at Alaska Airlines, as its new CEO. Pieper will assume the role on April 1, 2024, and will lead oneworld through its 25th-anniversary celebration year, focusing on strengthening the alliance between its partners to provide customers with an exceptional and seamless travel experience globally.

Robert Isom, Chief Executive Officer of American Airlines, Chairman of oneworld alliance said, "We are excited to welcome Nat Pieper into the role of CEO at oneworld and look forward to the alliance continuing its journey of innovation and collaboration under his leadership. With more than 25 years of working in the industry, Nat has the experience to enhance oneworld's position as the premier airline alliance, modernizing travel for millions of customers and oneworld frequent flyers."

In his current position at Alaska Airlines, Pieper played a key role in the airline's entrance into oneworld, executed aircraft transactions valued over \$9 billion, and secured access to \$5 billion in liquidity to ensure Alaska's viability through the pandemic. Pieper has also held executive positions at Delta Air Lines and Northwest Airlines, overseeing international, strategic, alliance, and

financial functions.

Nat Pieper, CEO, oneworld alliance said, "In my airline career, I have admired from afar and now experienced first hand the influence and benefits the oneworld alliance brings to an airline and its customers. I am thrilled to join the oneworld family and look forward to working with all of the best-in-class carriers that are part of our alliance. The future of the oneworld alliance is bright and I am ready to continue to develop the alliance into its next 25 years."

oneworld is an alliance of 13 world-class airlines, including Alaska Airlines, American Airlines, British Airways, Cathay Pacific Airways, Finnair, Iberia, Japan Airlines, Malaysia Airlines, Qantas, Qatar Airways, Royal Air Maroc, Royal Jordanian, and SriLankan Airlines, along with more than 20 of their affiliates. Fiji Airways is a oneworld connect partner, and Oman Air is set to join the alliance as the 14th member airline in 2024.

The member airlines collaborate to deliver a superior, seamless travel experience, offering special privileges and rewards for frequent flyers across the entire alliance network. This includes earning and redeeming miles and points, access to airport lounges, extra baggage allowances, and fast-track security lanes for top-tier cardholders.

### SR Technics names Owen McClave as new CEO

Owen McClave has been with SR Technics since 2019 when he joined as the Senior Vice President of Engine Services after he held key leadership positions at Pratt and Whitney and Lufthansa Technik in Ireland.

SR Technics, a leading Maintenance, Repair, and Overhaul (MRO) service provider, has announced the appointment of Owen McClave as its new CEO, effective immediately. Owen McClave, who was previously the Chief Operating Officer (COO) of SR Technics, succeeds Matthias Düllmann, who has left the company. SR Technics, headquartered in Switzerland, is a globally recognized MRO service provider with a focus on aircraft engine services and comprehensive maintenance solutions. The company plays a crucial role in supporting the aviation industry's operational needs by ensuring the reliability, safety, and efficiency of aircraft through its MRO services.

Feng Wu, Chairman of SR Technics said, "Owen brings a wealth of expertise and a proven track record in the core business of SR Technics that supports him well to lead the company through its growth process and foster further development of SR Technics as the leading Engine MRO service provider."

Owen McClave has been with SR Technics since 2019 when he joined as the Senior Vice President of Engine Services. Prior to his role at SR Technics, he held key leadership positions at Pratt and Whitney and Lufthansa Technik in Ireland. He also served as the Managing Director at Vector Aerospace UK (Airbus Helicopters). McClave holds Bachelor's and Master's degrees in business from Trinity College, Dublin, and is a designated Fellow of the Chartered Institute of Management Accountants (FCMA).

Owen McClave, CEO, SR Technics said, "As CEO I am very proud to be the caretaker of this great Swiss company. Its heritage goes back long before me, and its future will be stronger and will live on long after me. I commit myself to above all the safety of passengers, the wellbeing of our employees, protection of the environment and the financial success of the company. We have a strong management team, an excellent product portfolio and partners who are critical to our success and we will support those partnerships in any way we can."

As a part of the leadership transition, Owen McClave's previous role as COO will be assumed by Ruixiang Gong, who is currently the Deputy CEO of SR Technics. Ruixiang Gong has served in various leadership positions, including Chairman of the Board at SR Technics, Vice President of Maintenance at Hainan Airlines, and General Manager of the Maintenance Department at HNA Aviation Group Co., Ltd.

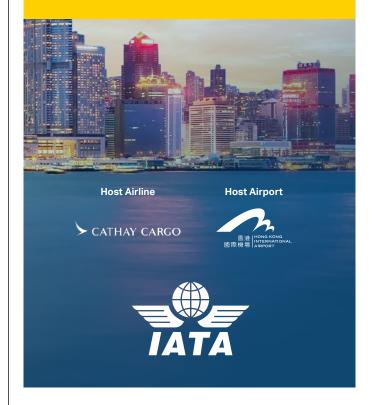


Hong Kong (SAR), China 12 – 14 March 2024

### DRIVING SUSTAINABLE AND INCLUSIVE GROWTH

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### Eviation makes latest top Executive Leadership appointments

Eviation Aircraft has announced key leadership appointments of Andre Stein as CEO, and Jeff Hurford as CFO to guide Eviation through the final stages of Alice aircraft certification.

viation Aircraft, a pioneer in the development of all-electric aircraft, has announced key leadership appointments to drive its vision of revolutionizing the aerospace industry. Andre Stein, a seasoned aerospace veteran with over 25 years of experience at Embraer, has been appointed as Chief Executive Officer (CEO), and Jeff Hurford, an industry expert with a rich background in aerospace financial and program management, has joined as Chief Financial Officer (CFO). Together, they will guide Eviation through the final stages of Alice aircraft certification, bringing all-electric aviation to fruition.

Andre Stein, the newly appointed CEO, played a pivotal role at Embraer, cofounding Eve Air Mobility and serving as its CEO. He brings extensive experience in product development, having led the Embraer E2 product and market strategy from conceptualization to certification. Stein's leadership at Eve also encompassed industrialization strategy, partnerships, sales, and successful capital raising, including Eve's listing on the New York Stock Exchange.

Jeff Hurford, the incoming CFO, arrives at Eviation from Cirrus Aircraft, where he served as Platform Director of the SR1X program. With a career spanning 19 years at Gulfstream Aerospace and holding various senior financial and program management roles in the aerospace sector, Hurford brings a wealth of expertise in overseeing financial and commercial aspects of aircraft development programs.

Andre Stein, CEO, Eviation said, "Eviation's mission to revolutionize aerospace couldn't be more important or more urgent, and I am honored to be joining the team. I have long admired the Alice – it's a beautiful and innovative aircraft that is leading the way in all-electric flight. I look forward to working with Eviation's team to take Alice through the next phases of its development and bring it to market, so passengers everywhere can enjoy sustainable and convenient commuter air travel."

Eviation Aircraft is at the forefront of electric aviation innovation, and its flagship product, Alice, stands as a testament to the company's commitment to sustainable air travel. Alice is a ninepassenger, all-electric commuter aircraft that has already proven its capabilities in flight. With a clean-sheet design, Alice achieves zero carbon emissions, coupled with lower operating costs per flight hour compared to traditional light jets or high-end turboprops.

Orders for the Alice aircraft have surpassed US\$ 5 billion, highlighting the strong market demand for sustainable aviation solutions. The new leadership team, under the guidance of Stein and Hurford, is poised to steer Eviation through the critical phases of Alice's development, certification, and market

introduction.

Jeff Hurford, CFO, Eviation
said, "Eviation is entering an
exciting period in its history.
As we move ever closer to-

ward certification and industrialization of the Alice, I am thrilled to join Andre and the team to lead the aerospace industry's transition to sustainability."

Eviation's commitment to green, cost-efficient, and convenient regional transportation is evident in its holistic approach to electric flight. The company designs electric propulsion units, high-energy-density batteries, and mission-driven energy management systems. The innovative airframe is purpose-built for electric flight, aligning with the broader industry shift toward sustainability.

Based in Washington State, Eviation Aircraft is well-positioned to continue its pioneering work in the electric aviation sector. The company's commitment to delivering green and efficient regional transportation solutions aligns with the evolving needs of the aviation industry and environmentally conscious passengers.

In summary, with the appointment of experienced leaders in the aerospace industry, Eviation Aircraft is poised to accelerate the development and market entry of the Alice aircraft, contributing to the global shift toward sustainable aviation practices.





## International CALENDAR

### 2024

Date	Event	Venue
14 – 15 Feb 2024	MRO Latin America	San José, Costa Rica
20-24 Feb 2024	Singapore Airshow	Changi Exb Centre,Singapore
27-29 Feb 2024	MRO XPO INDIA	New Delhi, India
27-29 Feb 2024	Aircraft Interiors INDIA	New Delhi, India
28-29 Feb 2024	Aerospace & Defence MRO South Asia 2024	New Delhi, India
28 – 29 Feb 2024	Aviation Festival Asia	Suntec, Singapore
28 Feb – 01 Mar 2024	Aero-Engines Americas	Miami, FL, USA
29 Feb – 01 Mar 2024	Engine Leasing, Trading & Finance Americas	FL, USA
05 –0 6 Mar 2024	Aircraft Interiors Middle East 2024	Dubai, United Arab Emirates
05 –0 6 Mar 2024	MRO Middle East	Dubai, UAE
7 – 8 Mar 2024	PBExpo 2024	Miami, FL, USA
12 – 14 Mar 2024	Aerospace & Defence Supplier Summit	Seattle, USA
12 – 14 Mar 2024	IATA World Cargo Symposium	Hong Kong, China
26 – 27 Mar 2024	MRO Central Asia	Tashkent, Uzbekistan
9 – 11 April 2024	MRO Americas	Chicago, USA
17 – 18 April 2024	Aerospace Tech Week Europe	Munich, Germany
17 – 19 April 2024	Vietnam Aviation Forum	Hanoi, Vietnam
24 – 25 Apr 2024	Aero-Engines Asia-Pacific	Hong Kong
28 – 30 May 2024	Aircraft Interiors EXPO	Hamburg, Germany
28 – 30 May 2024	EBACE 2024	Geneva, Switzerland
30 Apr – 2 May 2024	Global Aerospace Summit 2024	Abu Dhabi, UAE
02 –04 June 2024	IATA AGM & World Air Transport Summit	Dubai, UAE
05 –06 June 2024	Engine Leasing, Trading & Finance Europe	London, UK

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