

# Aviation UPDATE

Volume 9

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August 2023

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## Mr. Vivek Salvi

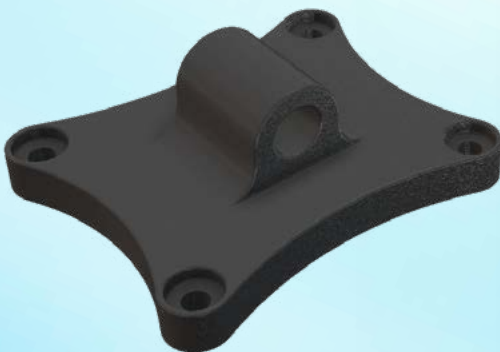
Sales Director

Aerospace & Defense

Transportation & Mobility verticals

Dassault Systèmes India

PG 27



**Mr. Ramesh S.  
Ramakrishnan**  
Chairman  
Transworld Group

PG 22



Ministry of Civil Aviation  
Government of India



Asia's largest event on Civil Aviation  
(Commercial, General and Business Aviation)



**WINGS INDIA  
2024**



18<sup>th</sup> - 21<sup>st</sup> January 2024  
Begumpet Airport, Hyderabad, India

In pursuance of the Hon'ble Prime Minister's vision to fulfil the common man's aspirations of flying and the grand success of the previous edition, Ministry of Civil Aviation (MoCA), Government of India, Airport Authority of India (AAI) and Federation of Indian Chambers of Commerce and Industry (FICCI) are organizing the next edition of 'WINGS INDIA 2024', a flagship event on Civil Aviation sector in this part of the world. The event is scheduled from 18th to 21st, January 2024, at Begumpet Airport, Hyderabad, India.

Wings India 2024 will be the most comprehensive event on the Civil Aviation Industry calendar that includes the Inaugural Ceremony, Global Ministerial Conference, Global CEOs' Forum, B2B / B2G Meetings and Awards Ceremony, Cultural Evening & Business Networking Dinner. Also, the event includes Exhibition, Chalets, Demonstration flights, Static Display, Media Conferences, One-to-One Business Meetings and many more.

## Event Format

EXHIBITION 

CONFERENCE 

CHALETS 

CEOs FORUM 

STATIC DISPLAY 

MEDIA CONFERENCES 

AWARDS 

## Exhibitors Profile

AIRCRAFT &  
HELICOPTER  
MANUFACTURERS

AIRCRAFT  
INTERIORS

AIRCRAFT MACHINERY  
& EQUIPMENT  
COMPANIES

AIRLINES, AIRLINE  
SERVICES & CARGO

MRO

SPACE & DRONES  
INDUSTRY

AIRPORT  
INFRASTRUCTURE

AIRCRAFT ENGINE  
MANUFACTURERS

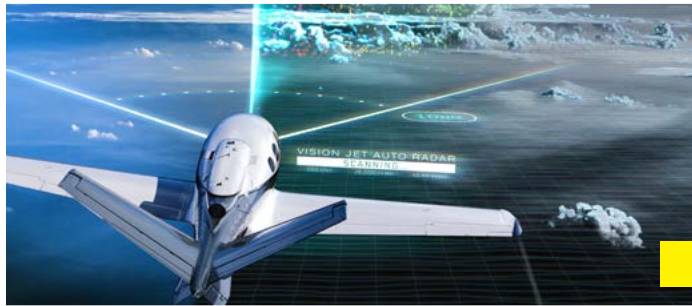
SKILL  
DEVELOPMENT

## Cathay Cargo launches new brand campaign “We Know How”

Page 13



SHIPPING A WORLD OF POSSIBILITY  
WE KNOW HOW



## Cirrus Aircraft Adds Auto Radar by Garmin® and Cirrus IQ™ Connectivity to the Best-Selling Vision Jet®

Page 13



Bell Expands H-1 Advanced Maintenance Training Academy for USMC

Page 38



Qatar Airways Cargo enhances customer experience with real-time personalized pricing via the online e-booking platforms

Page 14



BAE Awarded Next Generation Launcher Design Contract

Page 31

Daher’s top-of-the-line TBM 960 turboprop-powered aircraft reaches its 80th delivery milestone

Page 26



Air France KLM Martinair Cargo receives IATA CEIV Lithium Batteries certification

Page 16

# Aviation UPDATE

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**B. KARTIKEYA**

Hello Readers!

Aviation Update is the independent news and information source that people worldwide frequently turn to for business and civil aviation, as you know. Our August 2023 issue examines the newest developments in the aviation industry, emphasising significant news.

Take a look at the most recent updates in the aviation sector. The demand for 2.3M additional commercial pilots, technicians, and cabin crew got anticipated by Boeing to increase over the next 20 years. Being the first airline to use Delhi Airport's fourth runway, IndiGo is in the lead. Both Delhi Airport and IndiGo have accomplished a massive feat with this trip. Also, check out the most recent additions to the magazine's Air Cargo, Business Aviation, Helicopters, and SAF sections.

Remember to look at the exclusive interviews with notable figures in the aviation business featured on the magazine's front page. Mr Vivek Salvi, Sales Director for Dassault Systemes India's Aerospace and Military and Transportation and Mobility verticals, discusses the solutions supplied by the company and their distinctive qualities in the aerospace and military sector. Additionally, the chairman of Transworld Group, Mr Ramesh S. Ramakrishnan, shed some insight on the company's many verticals, identifying which ones are the most important and profitable.

You may read about how Larsen & Toubro and Navantia, Spain, inked a Teaming Agreement (TA) to submit a techno-commercial proposal for the famous P75 (India) submarine program of the Indian Navy in the Defence & Military section. The LEAP engines that will power the airline's new fleet of 210 Airbus A320/ A321neos and 190 Boeing 737 MAX family aircraft, which got initially revealed in February, have been ordered by Air India and CFM International, according to information in the magazine's Engineers & MRO section. A multi-year servicing contract between the two parties also got inked, and it will apply to the airline's entire fleet of LEAP engines.

Keep an eye on this space to stay updated and informed about the aviation industry. Your feedback and constant admiration is what makes us live by! Till we meet again. Take Care & God Bless!!

*Kartikeya B.*

**Spirit Air India to acquire six BN2T-4S turboprop Islander aircraft**



India-based domestic commuter airline Spirit Air has signed a Letter of Intent (LoI) for the purchase of six factory-new BN2T-4S turboprop Islander aircraft from UK aircraft manufacturer, Britten-Norman.

The BN2T-4S Islander is powered by twin Rolls-Royce (Allison) Model 250 turboprop engines and benefits from an extended cabin, allowing one extra row of seats compared with the standard piston Islander. With its engines offering an impressive 400shp (flat rated) the aircraft has a 22% increase in disposable payload, whilst maintaining remarkable short-field performance.

The BN2T-4S is the largest variant of the Islander. It achieved type certification with the FAA in late 2022 and has recently achieved validation in New Zealand. The type is also in the process of being validated in India, amongst other countries.

The new BN2T-4S aircraft are fully IFR capable, including FIKI. The cockpit will be equipped with the latest Garmin avionics including PFD, MFD and electronic engine instrumentation, whilst the interior and seating will be designed to meet the customer's closely defined requirements.

Whilst its new fleet of aircraft are being built at Britten-Norman's newly established UK facility, Spirit Air will initially take delivery of four fully-factory refurbished BN2T-4S Islanders to enable it to advance its entry into service.

The regional airline will operate a

fleet of BN2T-4S Islander aircraft on scheduled passenger services across India, providing vital sub-regional connectivity between remote grass airstrips and municipal sub-regional landing strips with the country's key primary airports.

**Boeing Forecasts Demand for 2.3M New Commercial Pilots, Technicians and Cabin Crew in Next 20 Years**



With the global commercial airplane fleet expected to double by 2042, Boeing forecasts industry-wide demand for 2.3 million new aviation personnel over the next 20 years to support the commercial fleet and meet long-term growth in air travel. The company's 2023 Pilot and Technician Outlook (PTO) projects that commercial carriers will need significant personnel through 2042 to support the global commercial fleet:

- 649,000 pilots
- 690,000 maintenance technicians
- 938,000 cabin crew members.

"With domestic air travel fully recovered and international traffic near pre-pandemic levels, demand for aviation personnel continues to increase," said Chris Broom, vice president, Commercial Training Solutions, Boeing Global Services. "Our competency-based training and assessment offerings will help ensure high quality training for future and current aviation professionals and continue enhancing aviation safety through immersive and

virtual training solutions."

Through 2042, the PTO projects: China, Eurasia and North America drive demand for more than half of new industry personnel, with requirements in China surpassing North America.

The fastest-growing regions for personnel are Africa, Southeast Asia and South Asia, with their regional demand expected to nearly double.

After omitting demand for Russia in last year's PTO due to uncertainty in the region, this year's forecast includes Russia in the Eurasia region, and it comprises 3% of global demand for personnel.

The PTO forecast includes:

Region	New Pilots	New Technicians	New Cabin Crew
Global	649,000	690,000	938,000
Africa	21,000	22,000	26,000
China	134,000	138,000	161,000
Eurasia	143,000	156,000	235,000
Latin America	38,000	41,000	49,000
Middle East	58,000	58,000	99,000
North America	127,000	125,000	177,000
Northeast Asia	23,000	28,000	39,000
Oceania	10,000	11,000	18,000
South Asia	37,000	38,000	45,000
Southeast Asia	58,000	73,000	89,000

**Star Air expands its footprint with 40 new routes under "UDAN 5"**

Star Air, one of India's leading regional airlines, is set to soar to new heights after being awarded with 40 new routes under the prestigious "UDAN 5" scheme. With a commitment to connect underserved and unserved regions of the country, Star Air plans to launch these routes and expand



its operations significantly, aiming to provide convenient and accessible air travel options to millions of travelers. The UDAN scheme, initiated by the Government of India, aims to make air travel affordable and reachable for all citizens while promoting regional connectivity. As a key participant in UDAN, Star Air has played a pivotal role in enhancing air travel accessibility across various states in India. As part of the expansion, Star Air is proud to introduce 7-8 new stations, which will further bolster its presence in the regional aviation sector. These new stations will act as strategic hubs, facilitating seamless connections and reducing travel time for passengers traveling to and from these regions. Some of the prominent new routes will be Nanded to Hindon, Hindon to Adampur and many more routes that will be announced in due time.

With the addition of these routes, Star Air is confident that it will open up new opportunities for trade, tourism, and economic growth in these regions. Moreover, the airline remains committed to maintaining the highest standards of safety, reliability, and customer satisfaction, ensuring that passengers have a pleasant and comfortable journey.

Mr. Sanjay Ghodawat, Chairman of Star Air, expressed his thoughts about the expansion and said, "We are delighted to be part of the UDAN scheme and contribute to the growth and development of regional air travel in India. These 40 new routes are a testament to our commitment to providing efficient and accessible air

travel options for all. We are confident that our expansion will create a positive impact on the lives of millions and drive progress in the regions we serve."

## Air India Announces Delhi-Dhaka Direct Flights from 15 September



Air India announced non-stop flights between Delhi and Dhaka, bringing greater convenience and comfort to travellers flying between the capital cities of India and Bangladesh. Starting 15 September 2023, Air India will fly four times a week between the two cities using its Airbus A320 aircraft. Air India currently flies thrice weekly between Kolkata and Dhaka. The additional frequency will help serve the increased demand for international travel to and from Dhaka on the back of Bangladesh's rapid economic growth and overall development. Air India's flight AI237 will depart Delhi at 1755hrs, arriving in Dhaka at 2045hrs. The return flight AI238 will leave Dhaka at 2145hrs, arriving in Delhi at 2350hrs. All times are local.

## SpiceJet Promoter Ajay Singh to Infuse INR 500 Crore into the Company

SpiceJet Promoter Ajay Singh has decided to infuse INR 500 Crore into SpiceJet by way of subscribing fresh equity shares and/or convertible instruments. The infusion of fresh capital will substantially strengthen the Company's financial position and



is a powerful vote of confidence in its future and long-term viability. It marks a pivotal moment in SpiceJet's journey towards sustained growth and long-term success.

The Board of Directors of the Company, which met on 12th July, 2023, considered options for raising fresh capital for the Company where Ajay Singh, Promoter of the Company, in order to strengthen the financial position of the Company, offered to infuse INR 500 Crore.

The Board deliberated on the matter and agreed to issue equity shares and/or convertible securities/equity share warrants on preferential basis to the Promoter and/or the Promoter Group of the Company, on preferential basis, in one or more tranches at an issue price to be determined in accordance with the SEBI ICDR Regulations for an amount of INR 500 Crore subject to the approval(s) of the shareholders of the Company, the Securities and Exchange Board of India and/or any other competent authorities and such other approvals, consent, etc. as may be required in this regard.

With this fund infusion by the Promoter, SpiceJet would be entitled to additional credit facilities of INR 206 Crore under the Emergency Credit Line Guarantee Scheme.

Ajay Singh, Chairman and Managing Director, SpiceJet said, "I am pleased to announce that I will infuse INR 500 Crore into the Company. SpiceJet has a bright future and I am committed to helping it achieve its full potential. This investment will allow the airline to accelerate its growth plans and capture new opportunities in the market, grow its revenue and profits. We are committed to building a sustainable and profitable business, and this

investment is a reflection of that commitment.”

“I am confident that SpiceJet, a powerful brand which has served passengers for over 18 years, will succeed in the long term and I am excited to be a part of this journey.”

The airline is already utilising \$50 million ECLGS funds that it has already received and its own cash to revive its grounded aircraft. Two of the grounded aircraft, a Boeing 737 and a Q400, have been operationalised so far and more planes are expected to re-join the fleet soon.

### IndiGo leads the way as the inaugural operator on Delhi Airport’s fourth runway



IndiGo was the first airline to operate from the newly constructed fourth runway 11L-29R, at the Indira Gandhi International Airport (IGIA), New Delhi. The flight marks a significant milestone for both IndiGo and Delhi Airport. The inauguration of this runway makes Delhi Airport, the first airport in the country to have 4 operational runways. The runway will be formally inaugurated by the Hon’ble Minister for Civil Aviation, Sh. Jyotiraditya Scindia, who also inaugurated the new, dual elevated Eastern Cross Taxiways at Delhi Airport. As part of the strong partnership with airport operator GMR Delhi International Airport Limited (GMR-DIAL), IndiGo’s operations team played a crucial role in the operationalization of the new runway 11L-29R via a special validation flight. This flight was carried

out by an IndiGo Airbus A320 aircraft carrying inspectors and officials, which landed on the Runway 29R at 1520h IST on July 11, 2023.

The Operationsteam at IndiGo worked with GMR-DIAL, Airports Authority of India (AAI) and the Directorate General of Civil Aviation (DGCA), to establish a Route Navigation Performance (RNP) based approach and missed approach procedures for the new runway. A draft approach was proposed by AAI, which was validated on a simulator. The approach was then cleared for flight validation. In addition, a safety risk assessment was carried out to identify any risk on the safe operations while conducting this approach, along with trainer sessions for the Flight Crew operating the validation flight.

Capt. Ashim Mittra, Senior Vice President Flight Operations, IndiGo, said, “We are really excited with the inauguration of the new runway at Delhi Airport. The 4th runway will add additional capacity for the country’s busiest airport. The development also highlights the Government of India’s encouragement and support for the aviation sector. We look forward to taking forward our strong partnership with GMR-DIAL and working together for the growth of the civil aviation sector in the country.”

### SpiceJet appoints EaseMyTrip as a General Sales Agent

SpiceJet is pleased to announce the appointment of EaseMyTrip (EMT) as a General Sales Agent (GSA) for select market section in India. This strategic partnership aims to enhance the promotion and sale of SpiceJet’s products and services in select markets. This collaboration showcases the commitment of both companies to deliver exceptional travel experiences and convenience to customers.

The appointment of EaseMyTrip as a



General Sales Agent will commence from 1st August, 2023. With their extensive network and expertise in the travel industry, EaseMyTrip will play an important role in boosting sales. As the GSA, EaseMyTrip will actively promote SpiceJet’s services, leverage its distribution channels, and employ all necessary measures to enhance the distribution and network of SpiceJet. SpiceJet had recently announced plans to revive its grounded fleet with the \$50 million funds received by the airline from the government’s Emergency Credit Line Guarantee Scheme (ECLGS) and internal cash accruals in time for the peak winter travel season. As part of this revival plan, two grounded aircraft have already joined the fleet and more planes are expected to return back to service soon.

As part of the revitalization program, the airline has also partnered with FTAL Aviation Ltd., a leading aftermarket provider of engine services. FTAL will provide SpiceJet with up to twenty engines for lease, inclusive of maintenance services. By leveraging FTAL Aviation’s engine expertise, SpiceJet will have access to a pipeline of available engines which eliminates the need for frequent shop visits.

SpiceJet will also see the return and induction of three Q400s following a settlement agreement with Nordic Aviation Capital and will induct ten B737s beginning winter schedule.

Shilpa Bhatia, Chief Commercial Officer, SpiceJet, said, “I am pleased to announce the appointment of EaseMyTrip as a General Sales Agent of SpiceJet for select market section in India. With their extensive experience, strong industry connections, and deep understanding of the Indian market,

we are confident that they will drive our sales efforts to new heights. We look forward to a successful collaboration that will elevate our brand and enhance customer experience.”

“We are elated to be partnering with SpiceJet and will be able to gain additional momentum and propel towards becoming a leader in the air ticketing industry within the next 18 to 24 months. With this collaboration and the potential for future acquisitions, we are presented with a fantastic opportunity for growth. We are eagerly anticipating the exciting possibilities that lie ahead as we further explore our partnership with SpiceJet,” said Nishant Pitti, CEO and Co-Founder, EaseMyTrip

## Air India's New Inflight Magazine 'namaste.ai' takes off



Air India has launched its all-new inflight magazine, namaste.ai, taking another step towards enhancing customer experience along its ongoing transformation journey. Namaste.ai is now available on board all Air India domestic and international flights. A premium travel and lifestyle magazine, it reflects Air India's vision of becoming a worldclass global airline with an Indian heart.

The inaugural edition of namaste.ai

features an inspirational cover story on the legendary JRD Tata as a tribute to the 'Father of Indian Aviation' to celebrate his birth anniversary on 29th July. The legacy of JRD Tata's indomitable spirit of entrepreneurship and pursuit of excellence continues to inspire Air India to reclaim its position in the upper echelons of global aviation.

Campbell Wilson, CEO & MD, Air India, said, “The name namaste.ai comes from the Indian greeting. Apart from being a land of diverse geographies, people, and cultures, India is known for its warm hospitality. Through namaste.ai, we will attempt to give our guests a glimpse of all that and more. We want to enhance our guests' experience of flying with us even more pleasurable.”

namaste.ai presents a selection of exciting content featuring travel destinations to explore near and far, as well as interesting lifestyle content from the worlds of technology, culinary arts, culture, and showbiz. It also features interesting updates from within Air India for guests to know more about the airline and its ongoing transformation initiatives.

## Star Air Commences Flight Operations between Pune and Hyderabad

Star Air, a leading regional airline in India, is expanding its network with the introduction of Pune as their newest destination. Starting 26th July, Star Air will connect Bengaluru (BLR) & Hyderabad (HYD) to Pune (PNQ) with convenient and reliable flights, offering passengers an enhanced travel experience.

With the introduction of this new destination, Star Air becomes the only airline to offer Business Class on the Hyderabad-Pune sector. This will also be the first time the luxurious Embraer E175 lands in Pune.

As a regional airline dedicated to



connecting Real India, our mission is to provide seamless connectivity and exceptional services to our valued passengers. With the addition of Pune, our network now spans across 18 destinations, enabling us to serve more travelers and connect communities across the country.

Pune, known as the cultural capital of Maharashtra, is a vibrant city with a rich history, diverse cuisine, and numerous attractions. We are excited to connect travelers from Bengaluru and Hyderabad to Pune, opening up new opportunities for business, leisure, and exploration. Whether it's experiencing the city's cultural heritage, exploring its natural beauty, or engaging in its thriving business scene, Pune has something to offer to every traveler.

Capt. Simran Singh Tiwana, CEO of Star Air, shared his enthusiasm about the new route, stating, “We are delighted to announce the launch of our Bengaluru-Hyderabad-Pune service. This expansion reflects our dedication to Connecting Real India and fulfilling the travel needs of our passengers. Pune is a significant addition to our growing network, and we are confident that this route will further enhance regional connectivity and contribute to the further development of all 3 cities.”

## Collins Aerospace inaugurates expansion of additive manufacturing centre

Collins Aerospace, a business unit of RTX, marked a momentous occasion on July 20, as it unveiled the inauguration of a US\$14 million (£10.9 million) expansion





for its additive manufacturing centre in West Des Moines, Iowa. Spanning 9,000 ft<sup>2</sup>, the expansion provides ample space for housing multiple state-of-the-art 3-D metal printers. Notably, the first printer installed boasts a build volume eight-times larger than the facility's existing printers, significantly enhancing the centre's additive manufacturing capabilities.

Renee Begley, the West Des Moines site lead for Collins Aerospace, emphasised the pivotal role of additive manufacturing in the future of the aerospace and defence industry. From supporting commercial aircraft backlog to enabling future platforms and reducing carbon emissions, additive manufacturing presents numerous opportunities for innovation. The expansion stands as an investment in the business, poised to deliver substantial benefits to customers, such as reduced weight, complexity, lead time and cost in supplied parts.

The Collins Aerospace West Des Moines facility stands at the forefront of engine component design and production for both commercial and military aircraft. The addition of these new printers opens avenues for exploring additive production of these components, complementing the facility's current production of land-based turbine components. Moreover, the West Des Moines site proudly joins an elite group of only eight facilities in the U.S. to receive

the prestigious National Aerospace and Defence Contractors Accreditation Programme (NADCAP) certification for additive manufacturing.

With a strong commitment to additive manufacturing, Collins Aerospace maintains a global network of additive production centres in Iowa, Minnesota, North Carolina, and Singapore. Additionally, the business operates an additive research centre in Connecticut, further solidifying its dedication to advancing this critical focus area within the aerospace industry.

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### **Air India eyes 300% growth in cargo capacity in 5 years**

Air India is gearing up to play a key role in boosting the freight and cargo ecosystem in India and globally. Initiatives taken in recent times will not only enhance the role of Air India as a major cargo carrier, but also bolster the country's cargo ecosystem and contribute to the development of an efficient air cargo supply chain accelerating exports from India.

The belly capacity of the Air India fleet will grow significantly over the next few years, with the addition of new wide-body aircraft to its fleet this year and with most aircraft on firm order set to arrive from 2025, complementing



India's manufacturing and export growth. This will have a cascading effect in generating greater employment prospects and boosting various business sectors, while supporting the economy.

The firm orders comprising wide-body aircraft of 34 A350-1000, six A350-900, 20 Boeing 787 Dreamliner, and 10 Boeing 777X wide-body aircraft will increase Air India's annual cargo capacity by a staggering 300% to 2 million tonnes over the next five years with non-stop connection to key export markets globally.

Air India CEO and MD, Campbell Wilson, said, "At Air India, we see a huge potential in the air cargo industry, which the Indian Government plans to grow to 10 million tonnes by 2030. Our cargo division is implementing a series of strategic measures aimed at fostering growth and strengthening our market presence. The large passenger belly capacity addition will be augmented with the launch of value-added products and services across the network."

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### **Gateway to the Western Ghats: IndiGo takes off to Shivamogga, the 79th domestic destination in the 6E network**

IndiGo has announced Shivamogga as its 79th domestic destination and 109th overall destination in the 6E network. The airline will operate non-stop daily flights between Bengaluru and Shivamogga, starting August 31, 2023. Shivamogga will be the sixth destination in Karnataka in the 6E



network, after Bengaluru, Mysore, Mangaluru, Hubballi, and Belagavi. This direct flight will enhance intrastate accessibility, while connecting Shivamogga to key domestic and international destinations through Bengaluru.

Mr. Vinay Malhotra, Head of Global Sales at IndiGo, stated, "We are pleased to add Shivamogga to our extensive domestic network. This will be our sixth destination in Karnataka, 79th in India, and will enhance trade, tourism, and mobility across the state, and beyond. By introducing air connectivity to Shivamogga, we also aim to provide easy access to neighboring areas while contributing to economic activity and employment opportunities. Direct connectivity to and from Shivamogga will also serve as a gateway to the Malenadu region, renowned for its lush greenery and scenic landscapes, further strengthening the city's tourist appeal. We will continue to uphold our promise of providing on-time, affordable, courteous, and hassle-free travel experience across a wide network."

**Delta Air Lines Discloses Order for 12 Additional A220 Aircraft**



Under its current agreement, Delta Air Lines has disclosed an order for 12 additional A220-300 aircraft, bringing the airline's total firm order for A220s to 131 aircraft - 45 A220-100s and 86 A220-300. Throughout the years, Delta has reordered the A220 five times and is the largest A220 customer and operator in the world.

"The A220-300 offers efficient performance and flexibility," said Kristen Bojko, Vice President of Fleet. "The continuing expansion of Delta's A220 family is an integral investment in the future of sustainable aviation."

"This additional order from the largest A220 customer and operator is yet another strong endorsement for the value and opportunities offered by this latest generation aircraft family. The A220 provides Delta the flexibility to right-size its operations, gaining in efficiency and offering superior single-aisle comfort. In service with Delta, the A220 has proven to be a game changer in its size category in highly competitive North America markets," said Christian Scherer, Airbus Chief Commercial Officer and Head of International.

In addition to its positive cabin experience, the aircraft plays an important role in helping decrease airline operating costs and environmental impact. Offering 25% lower fuel burn and CO2 emissions per seat compared to previous generation aircraft, the A220 is the only aircraft purpose-built for the 100-150 seat market. Combining state-of-the-art aerodynamics, advanced materials and Pratt & Whitney's latest-generation GTF™ engines, the A220

brings customers a 50% reduced noise footprint and around 50% lower NOx emissions than industry standards.

Delta took delivery of its first Airbus A220 in October 2018, and was the first U.S. carrier to operate the aircraft type. Delta currently operates a fleet of 433 Airbus aircraft, including 61 A220 aircraft, 280 A320 Family aircraft, 64 A330s and 28 A350-900 aircraft.

**US Airlines to Support NASA-Boeing Sustainable Flight Demonstrator Project**



Boeing and NASA will collaborate with U.S. airlines to advise the Sustainable Flight Demonstrator (SFD) project and development of the X-66A research aircraft. As part of a new sustainability coalition, Alaska Airlines, American Airlines, Delta Air Lines, Southwest Airlines and United Airlines will provide input on operational efficiencies, maintenance, handling characteristics and airport compatibility.

NASA and Boeing also unveiled the new X-66A livery today at EAA AirVenture Oshkosh.

"Hearing directly from the operators during all phases of the Sustainable Flight Demonstrator project will help us understand exact requirements and tradeoffs," said Todd Citron, Boeing chief technology officer. "The airlines' feedback will significantly contribute to the X-66A project learnings while furthering aviation sustainability."

The X-66A will test the Transonic Truss-Braced Wing (TTBW) airframe configuration and will be built from a modified MD-90 aircraft at a Boeing

facility in Palmdale, Calif. It is NASA's first X-plane focused on helping achieve its goal of net-zero aviation greenhouse gas emissions.

When combined with expected advancements in propulsion systems, materials and systems architecture, a single-aisle airplane with a TTBW configuration could reduce fuel consumption and emissions up to 30% relative to today's domestic fleet of airplanes.

The U.S. airlines will offer feedback throughout the project, including:

**Design:** Airline participants will share feedback on sustainable operations and airport compatibility. While the X-66A will have a wingspan of 145 feet, the TTBW design could be used by airplanes of different sizes and missions and may benefit from folding wing tips to accommodate existing airport infrastructure.

**Simulation and lab testing:** Airline pilots will have a chance to experience the X-66A through a flight simulator and assess the vehicle's handling characteristics. **Flight testing:** Airline operations and maintenance teams will assess the X-66A as modifications are made to the airplane. Flight testing is slated for 2028 and 2029 out of NASA's Armstrong Flight Research Center at Edwards Air Force Base.

### Embraer E190-E2 and E195-E2 Awarded Type Certification by CAAM

Embraer's E-Jets E2 family of commercial jets, the E190-E2 and E195-E2, has received Type Certification from the Civil Aviation Authority of Malaysia (CAAM). This significant milestone comes after Malaysia's SKS Airways announced its selection of 10 E195-E2s at LIMA'23 to drive its growth plans for the region. The E190-E2 and E195-E2 were certified by three key civil aviation authorities - the FAA (USA), EASA (Europe) and ANAC (Brazil) in



2018 and 2019 respectively.

"Following our comprehensive assessment, CAAM is pleased to grant the type certification validation to Embraer's E195-E2 and E190-E2 aircraft. We value Embraer's spirit of collaboration towards our goal of instilling safety culture to ensure the highest level of safety, security and efficiency in Malaysian aviation industry," said Captain Norazman Bin Mahmud, CEO of the Civil Authority of Malaysia.

"CAAM's certification of the E2 is great news for Embraer and the industry", said Martyn Holmes, CCO of Embraer Commercial Aviation. "It lays the foundation for the entry into service of the E195-E2 in Malaysia in 2024. The E2 is the ideal family of aircraft to complement larger aircraft and grow regional connectivity within Malaysia and beyond, while delivering ultimate

performance in terms of the lowest fuel burn, smallest noise footprint and outstanding passenger comfort."

In its recent Malaysian network analysis, Embraer identified significant opportunities for airlines in the country to establish up to 120 new routes within Malaysia and the ASEAN region by deploying the latest technology regional jets, such as the E2, that deliver the greatest fuel burn reductions and lowest costs, while opening up new routes profitably

"With its remarkable efficiency and economics, Embraer's E2 family of aircraft is reshaping the landscape of regional aviation in Asia Pacific," said Raul Villaron, VP Sales & Marketing, Head of Region Asia Pacific, Commercial Aviation. "It is a compelling solution that enables airlines to broaden their network and establish unique routes in the region."

## Dronamics Becomes the World's First Cargo Drone Airline with IATA and ICAO Designator Codes

**D**ronamics has announced that it has been officially assigned both IATA and ICAO designator codes. Dronamics is the first cargo drone airline to secure these codes, granting it recognition on par with other international airlines.

Dronamics has been assigned the IATA designator code "OY," along with the accounting prefix "651." IATA codes play a critical role in the aviation industry, serving as essential identifiers for airlines, their destinations, and cargo documents. These codes enable Dronamics to be officially recognized as an airline entity, supporting commercial interline agreements with other IATA carriers, facilitating connections with freight forwarders, and enabling the publication of flight schedules through OAG, the world's leading provider of digital flight information. The IATA 2-letter Airline Designator code "OY" will be used to establish flight numbers for both scheduled and non-scheduled flights, providing standardized identification across its operations. Additionally, the Airline Accounting Prefix "651" grants Dronamics the ability to issue Air Waybills (AWBs), facilitating seamless cargo uplift within



its extensive network.

In addition to the IATA codes, Dronamics has also secured the ICAO designator codes, further solidifying its presence in the global aviation community. The ICAO telephony call sign "Black Swan" and the 3-letter airline designator "DXE" have been assigned to Dronamics. These ICAO codes are widely utilized by pilots and air traffic controllers worldwide, playing a crucial role in flight planning, communication with air traffic control,

and the dissemination of vital information through NOTAMs (Notice to Air Missions).

"Becoming the first cargo drone airline with both IATA and ICAO designator codes is a testament to Dronamics' pioneering spirit and our vision for faster, cheaper and green air cargo for everyone, everywhere. This recognition by the leading aviation community reinforces our position on the international aviation map," said Svilen Rangelov, co-Founder and CEO of Dronamics.

## CSafe to Unveil First Frozen Active Temperature-Controlled Container

**C**Safe, a provider of a complete range of active and passive temperature-controlled shipping solutions for the pharmaceutical industry, will expand its active bulk air cargo container portfolio to integrate a new -20°C temperature setpoint for the CSafe RKN.

The company will begin offering CSafe RKNs with the new frozen temperature setpoint on the control panel early next year. The CSafe RKN design requires minimal adjustment to accommodate the new -20°C temperature setpoint, limiting the need for additional customer training to take advantage of the new temperate profile.

CSafe RKNs with the -20°C setpoint capability will be available for lease in early 2024. **The CSafe RKN design features include:**



- Predictive and real-time analysis pre- and post-shipment to assess lane risk based on external data sources, such as flight tracking, inclement weather, etc.
- Total visibility to conditional data in addition

battery level percentage and door open/close events.

- Optimal footprint for all wide-bodied aircraft, ground transportation and warehouse operations.

"Our engineering team designed our RKN in a way that we could easily add frozen temperature setpoints in the future," said CSafe chief operating officer, Tom Weir. "Every CSafe RKN is built with patented high-performance VIP insulation and an innovative air recirculation system that envelops the entire payload. Combined with our industry-leading preventive maintenance rebuild program and support from our global service network, these technologies and service programs have delivered reliable temperature control and exceptional battery life for 15 years."

## Cathay Cargo launches new brand campaign “We Know How”

Cathay Cargo was excited to mark the launch of its first marketing campaign, “We Know How”, with a special ceremony held at Hong Kong Aircraft Engineering Company Limited’s (HAECO) hangar facility at Hong Kong International Airport (HKIA) on 21 June. The event also formally introduced the newly rebranded Cathay Cargo with the first Cathay Cargo Boeing 747-8F to receive the new livery making a giant and dramatic backdrop for the occasion.

In his speech, Secretary for Transport and Logistics Mr Lam Sai-hung referenced the collaborative work between Cathay Cargo and the Airport Authority Hong Kong’s new HKIA Logistics Park in Dongguan. This new facility despatches built-up and screened cargo from the heart of the GBA direct to Hong Kong International Airport by ship.

Secretary Lam said: “We appreciate a lot Cathay’s unwavering support for this project, with Cathay Cargo and the Cathay Cargo Terminal being the first carrier and the first cargo terminal operator respectively to handle cargo shipments under this innovative model. We trust that this additional mode will open up tremendous opportunities for both Cathay Cargo and our airport, helping both to



enlarge catchment in the huge market of the GBA and reinforcing our strength as the leading air cargo and logistics hub.”

Director Cargo Tom Owen said: “Our brand combines innovation, people, solutions and service. Combined with our freighter fleet, our rebuilding passenger cargo belly network and Hong Kong’s logistics capabilities, we have the quality and expertise needed to thrive in all market conditions.

“We are investing in our brand so that we can continue to grow and build on Hong Kong’s position as the leading air cargo hub. Our brand displays the pride in our achievements, but also our ambitions to move forward – and our optimism for the future of air cargo and our home of Hong

Kong.”

General Manager Brand, Insights and Marketing Communications Edward Bell said: “Any shipment on a Cathay Cargo plane matters. It’s going somewhere because it’s needed quickly, or because it needs the protection and assurance of our specialist handling. There is a story behind each shipment that speaks to the magic of the goods we fly, and their importance to the people who receive them.

“‘We Know How’ is a privileged peek into the inner sanctum of our freighters and a chance to experience the expertise of our people and the technology they use to ensure every shipment arrives quickly and in perfect condition.”

## Menzies Aviation and Bangalore International Airport Limited enter into a partnership to expand air cargo services at one of India’s busiest airports

Menzies Aviation, the leading service partner to the world’s airports and airlines, has affirmed its commitment to India with a new joint venture with Bangalore International Airport Limited (BIAL), the operator of Kempegowda International Airport Bengaluru (BLR Airport). Operating as Menzies Aviation (Bengaluru) Private Limited (MABPL), the new partnership will be the sole provider of domestic cargo operations at BLR Airport while also providing international cargo services for a period of 15 years, which commenced at the end of May 2023.

As part of the agreement, MABPL is responsible for handling international exports/imports at an existing on-site cargo facility that has the capacity to handle 210,000 tonnes. MABPL will increase the capacity by 40,000 tonnes in a phased manner by the end of this decade and the cargo



terminal will continue to benefit from Menzies’ operational expertise and industry-leading excellence in safety, efficiency and sustainability.

MABPL will also become the sole operator at a new domestic cargo facility once completed, handling an initial 250,000 tonnes of cargo, with scope to increase to 400,000 tonnes. This significant development of domestic cargo operations will support BIAL’s ambitions to cater for up to 1.6 million tonnes of cargo annually across its facilities. Serving multiple airlines and playing a critical role in the development of India’s aviation sector, BLR Airport is strategically located in India and has

received industry recognition for its highly efficient cargo operations, emerging as the preferred cargo airport in South India.

Charles Wyley, Executive Vice President Middle East, Africa and Asia, Menzies Aviation, said: “This long-term agreement with BIAL significantly expands our cargo operations at this strategically important transport hub, which represents the gateway to South and Central India. This partnership comes at an exciting time for the development of the Indian aviation market and BIAL continues to invest in its state-of-the-art facilities. We look forward to deploying our operational expertise and developing BLR Airport’s cargo infrastructure as we, together with BIAL, strategically enhance the airport’s position as a thriving centre of cargo excellence. Thank you to everyone involved in ensuring a seamless transition.”

## Qatar Airways Cargo enhances customer experience with real-time personalized pricing via the online e-booking platforms



Qatar Airways Cargo have announced that optimised, real-time pricing powered by PROS Smart Price Optimization and Management is now live on all online booking channels across its network. The real-time pricing engine provides Qatar Cargo customers an enhanced digital buying experience that allows immediate online booking confirmation with accurate, personalised pricing.

Part of The Next Generation initiative, Qatar's Digital Lounge places an emphasis on user experience and ease of use, allowing customers to price and book cargo shipments without the need to call or email the sales team directly. With PROS Smart Price Optimization and Management solutions, Qatar Airways Cargo powers its online channels with real-time personalised dynamic pricing, accessing live capacity

to offer accurate and bookable rates. The AI-powered optimisation solution models improve win rates by personalising the price offering and maximising sales.

Qatar Airways Cargo has been quick to adopt an omni-channel model, giving customers multiple choices to book shipments based on their own channel preference. With large volumes of complex pricing requests, PROS Air Cargo Orchestration Services enables Qatar Airways Cargo to provide real-time, optimised prices to third-party digital marketplaces such as WebCargo, CargoAI and Cargo.one. Being able to respond to these requests with profitable, accurate pricing in a way that is reliable, performant, and scalable provides customers with a premium experience few can offer.

"PROS real-time pricing engine provides a highly accurate, scalable pricing

capability that directly translates to a reliable and responsive buying experience for our customers," said Florent Bonello, Vice President Cargo Revenue Management at Qatar Airways Cargo. "As a next phase of our implementation, we are seamlessly integrating PROS Smart Configure Price Quote within our sales ecosystem, so that we can quickly manage and deliver omnichannel quoting across our spot, contract and allotment sales."

"The air cargo market is extremely dynamic, and carriers need to be able to respond quickly and accurately to drive superior customer experiences," says Surain Adyanthaya, President, Travel, PROS. "We are proud to partner with Qatar Airways Cargo to provide a highly scalable solution, with unparalleled response times, ensuring they can deliver fast, accurate, and reliable offers for each and every customer."

## Hellmann, SAL Saudi Logistics, QProducts, and VEXSL sign up for Pharma.Aero



**P**harma.Aero announces four new additions to the global community of Life Sciences end-to-end supply chain stakeholders: Hellmann Worldwide Logistics and SAL Saudi Logistics sign up as members; VEXSL and QProducts & Services join as associate partners.

Trevor Caswell, Chairman of Pharma.Aero, extends a warm greeting to the new members and associate partners representing diverse industry segments, stating, “We are thrilled to welcome such a diverse group of supply chain stakeholders to our global community. We look forward to collaborating and leveraging their expertise in addressing the industry’s challenges and enhancing end-to-end chain visibility for life science and MedTech products.”

Mark van Os de Man, the Global Airfreight Product Director for Healthcare at Hellmann, recognizes the significance of collaboration within the healthcare supply chain for achieving continuous improvement: “We believe that becoming a part of industry interest groups such as Pharma.Aero offers a valuable platform to engage with all stakeholders and facilitate

positive changes in the healthcare and life science industry. Hellmann aims to leverage their expertise, track record, and forward-thinking approach to become a significant contributor to the Pharma.Aero community.”

Wejdan Soruji, Manager New Product Development of SAL, sees the partnership as a unique opportunity for knowledge sharing and collaboration. “We are excited to be a member of Pharma.Aero network as this is a great platform to share our experience in pharma ground handling with industry leaders”, said Soruji. “This is surely a step towards achieving our vision of becoming the logistics champion for a globally connected Saudi Arabia.”

Kevin Lynch, General Manager, Sales & Marketing, QProducts and Services, expresses company’s excitement about partnering with Pharma.Aero. “We at QProducts & Services are proud to join the Pharma.Aero community! We are excited to collaborate with fellow member and associate partners to address temperature, sustainability & visibility challenges faced by the Pharmaceutical,

Life Science & MedTech industry. Our recent expansion into APAC and EU creates more opportunities to leverage our nearly three decades of cold chain experience by contributing meaningful insights to support the Pharma.Aero mission”, added Lynch.

Cole Fouillard, CEO of VEXSL, emphasizes the company’s enthusiasm for this partnership. “We at VEXSL are excited to join Pharma.Aero in the pursuit of aligning with some of the top pharmaceutical logistics companies in the world. As a growing company, we welcome the opportunity to learn, adopt and apply the cutting-edge technologies, procedures and strategies through the collaboration of fellow associate members, partners and board members of Pharma.Aero. Our mission is to provide a safe and secure shipping solution for our customers that assures the care and custody of the products shipped while purposefully employing military veterans and first responders in the process. We couldn’t think of a more willing organization, with such a purpose driven mission than Pharma.Aero and we look forward to the future of pharma logistics.”

# Air France KLM Martinair Cargo receives IATA CEIV Lithium Batteries certification



**A**ir France KLM Martinair Cargo has announced the successful attainment of the IATA Centre of Excellence for Independent Validators Lithium Batteries (CEIV Li-batt) certification for Air France Cargo and its hubs at Paris Charles de Gaulle and Chicago O'Hare. Safety is a top priority at Air France KLM Martinair Cargo (AFKLMP Cargo), ensuring the best possible transportation of dangerous goods, such as lithium batteries, which are increasingly in demand.

On 11th July, Christophe Boucher, EVP of Air France Cargo, visited the IATA offices in Geneva to accept the much sought-after lithium battery certification for Air France Cargo and its hubs at Paris Charles de Gaulle and Chicago O'Hare. Certification is preceded by a strict assessment, which not only confirms an organisation's commitment to upholding the highest safety standards,

but also ensures the safety of employees and operations by continually improving and maintaining standards.

"We are very proud of this certification that proves that Air France KLM Martinair Cargo applies the highest industry standard with regards to the handling of Lithium batteries. We keep on working on the different aspects of the handling and transportation of such shipments in order to ensure the maximum level of safety to our passenger and cargo customers," Christophe Boucher, EVP of Air France Cargo, said.

The certification programme of the Centre of Excellence for Independent Validators Lithium Batteries (CEIV Li-batt) is specifically designed to enable shippers, freight forwarders, cargo handling facilities and airlines to fulfil their safety obligations by complying with regulations for transporting lithium batteries.

"We congratulate Air France KLM

Martinair Cargo on achieving CEIV Lithium Battery Certification. Lithium batteries are critical power sources for many consumer goods and it is vital that we can ship them safely by air either with finished products or as components in global supply chains. That's why we developed the CEIV Lithium Battery certification. It gives their shippers the assurance that they are operating to the highest safety and security standards when shipping lithium batteries," Frederic Leger, IATA Senior Vice President Commercial Products and Services, added.

Nowadays, these batteries are the preferred power source for mobile phones, children's toys, cars, e-bikes and a wide array of other consumer goods. Many people are unaware, however, that lithium batteries are dangerous goods that can pose safety risks if not handled in accordance with transport regulations.



## flydocs appoints Savas Toplama as new Chief Commercial Officer to drive growth strategy

flydocs, a leading asset management solution provider for the aviation industry, has announced the appointment of Savas Toplama as its new Chief Commercial Officer (CCO). With extensive experience in the aviation industry, Toplama will be responsible for accelerating flydocs' global commercial strategy and driving business growth.

Toplama brings a wealth of knowledge and a proven track record of success in aircraft operations, business development and technology strategy with over 17 years of experience across aviation and professional services. He will be succeeding and collaborating with John Bowell who was the company's first CCO and an instrumental figure in elevating flydocs' commercial strategy through marketing, business development and customer success activities to drive business growth and market share which positioned flydocs as a leader in the digital asset management space.

In his new role as CCO, he will lead flydocs' commercial and marketing team, focusing on strengthening customer relationships, identifying growth opportunities and delivering innovative solutions that meet the evolving digital needs of the aviation industry. With his deep understanding of the market and passion for customer-centric strategies, he will work closely with the flydocs' leadership team to execute the company's ambitious vision and further establish its position as a preferred partner in aviation digital asset management.

Toplama holds an MBA from the Frankfurt School of Finance and Management along with several certifications in leadership, project management and Scrum.



## Thomas Woldbye appointed as new CEO of London Heathrow Airport

Heathrow Airport Board has announced that current CEO, John Holland-Kaye, is to be replaced by Thomas Woldbye. Woldbye is the current CEO of Copenhagen Airport and will assume his new role later on this year when Holland-Kaye steps down.

Having served as the CEO of Copenhagen Airport since 2011, Woldbye brings with him a wealth of experience and a proven track record as a CEO of a major airport championing passenger service, sustainability and growth. His experience means that he is ideally placed to oversee the airport's future strategy following an £11 billion private investment programme by Heathrow's shareholders that has transformed the UK's hub into the modern, top-rated airport it is today.

Woldbye has previously forged strong links with the Danish Government, who are part owners of Copenhagen Airport and fostered partnerships with airlines to drive investment and development, including significant recent expansions in terminal capacity at the airport. Prior to his role at Copenhagen Airport, he spent 27 years at Møller-Mærsk, heading the global shipping and ferry divisions, working in several different countries around the world and delivering significant success in complex operating environments while building up expertise in process efficiency.

Holland-Kaye will remain in post keeping the airport focussed on delivering excellent passenger service over the summer getaway until Woldbye officially starts later in the year.

Commenting on the appointment, Heathrow Chairman Lord Paul Deighton said: "After an extensive and rigorous review of candidates, the Heathrow Board is delighted to appoint Thomas Woldbye as the next Heathrow CEO. Leading Britain's hub airport is one of the most important jobs in global aviation and the vacancy attracted the best calibre talent from across the world. Thomas's achievements at Copenhagen not only mirror Heathrow's long-term strategy, but his track record in successfully running a major airport and working closely with stakeholders to secure consensus and deliver positive results stood out in the selection process."

## Air bp appoints Federica Berra as senior vice president

Air bp announces the appointment of Federica (Fede) Berra as senior vice president effective immediately. Federica will succeed Martin Thomsen who has successfully steered the business since 2020 through very challenging market conditions.

Fede joined bp in June 2020 as senior vice president integrated gas and power in the gas & low carbon energy business. Prior to coming to work for bp, Fede was with ExxonMobil as vice president where she held a wide range of leadership roles in Europe and

North America in gas and power marketing. Fede has a passion for diversity and inclusion, and advocates for the adoption of positive inclusive behaviours and psychological safety. In her career she has led diverse, international teams and is known for her values-based leadership.

Fede said: «I am thrilled to join Air bp at this exciting time for the business. The new Air bp strategy was launched just over a year ago, responding to the changing needs of our customers, and the team are making great strides to execute it. My priority in this role is to continue to deliver safe and reliable operations for our customers, and I am also committed to delivering our aim to be the sustainability partner of choice to the industry.»



## FedEx names John W. Dietrich as Executive Vice President and Chief Financial Officer

FedEx Corp. has named John W. Dietrich as the new Executive Vice President (EVP) and Chief Financial Officer (CFO), effective from August 1, 2023. Dietrich previously served as the CFO of Atlas Air Worldwide. This appointment comes as part of the company's ongoing transformation, with strategic shifts in the finance organisation.

Michael C. Lenz, the current EVP and CFO, will be stepping down from his role on July 31, 2023. However, he will continue to support the company as a senior advisor until December 31, 2023, to ensure a seamless transition.

In addition to these changes, the finance organisation will see further developments:

Jennifer L. Johnson, the CVP and Principal Accounting Officer, will take on an expanded role. She will oversee the consolidation of the company's international accounting teams into a single global organization under her purview. Furthermore, Johnson will be responsible for all controllership functions, including the consolidations process, SEC reporting, statutory reporting and Sarbanes-Oxley compliance.

Leslie M. Benners, the SVP of Finance and former CFO of FedEx Office and FedEx Services, will now lead the company's sourcing and procurement efforts. She will head a consolidated global team with a focus on driving efficiencies to reduce costs across the enterprise.

Claude F. Russ, currently the COO of FedEx Dataworks and former CFO of FedEx Freight, will join the corporate finance team as the CVP of Finance Transformation. His role will involve overseeing and ensuring the execution and measurement of the company's financial objectives. Russ will draw on his experience in financial planning and analysis and revenue management from his previous roles at FedEx. Notably, he played a key leadership role in the DRIVE transformation framework, which will enable this work.



## Frank Bauer appointed Chief Financial Officer and Chief Human Resources Officer of Lufthansa Cargo AG

Frank Bauer will be the new Chief Financial Officer and Chief Human Resources Officer of Lufthansa Cargo AG. This was decided by the company's Supervisory Board on Wednesday evening. He will take up his new position on August 1, 2023.

Dr. Michael Niggemann, Chairman of the Supervisory Board of Lufthansa Cargo AG, said, "I am delighted that Frank Bauer, an experienced finance and HR expert with great expertise in the logistics sector, will complement and strengthen the Executive Board of Lufthansa Cargo. He has proven his management skills in various leadership positions in the Lufthansa Group. The Lufthansa Cargo Executive Board, which is now complete again, will master future challenges under the leadership of Chairman Ashwin Bhat and, together with the company's employees, further expand Lufthansa Cargo's global leadership position."

Frank Bauer began his career at Lufthansa in 2007. Three years later he joined the airline Jade Cargo in China. In 2012, he returned to Deutsche Lufthansa AG and took on numerous management positions in the years that followed. For example, he headed the Lufthansa Group's Internal Audit department. Subsequently, as a member of the Executive Board of Eurowings, he was responsible for Finance and Human Resources. Most recently, he headed the Controlling and Risk Management of the Group.

Dr. Christian Leifeld will take over responsibility for Controlling and Risk Management at the Lufthansa Group as Frank Bauer's successor on August 1, 2023. He began his career at McKinsey in 2003. After founding the start-up InterNations (now part of New Work SE) and serving as CFO there, he moved to the E.ON Group in 2009, where he held numerous management positions. Christian Leifeld was responsible for Group Controlling from 2017 and subsequently for Group Controlling, Accounting & Risk, before serving as Country CFO for E.ON in the Czech Republic from 2020 to 2023.

## BOC Aviation appoints Thomas Chandler Chief Operating Officer

BOC Aviation Limited is pleased to announce that Mr Thomas (Tom) Chandler has been appointed Chief Operating Officer. In his new role, he oversees Technical, Procurement, IT, Legal and Transaction Management and Compliance and Insurance Departments.

Mr. Chandler was formerly BOC Aviation's Deputy Chief Operating Officer, based in Singapore. He has held this position since January this year, having joined from TUI Group, where he was Managing Director, Fleet and Asset Management. Mr. Chandler replaces Mr. David Walton, who retired on 30 June after nine years with the Company.

"Management succession is an important part of any business," said Steven Townend, Deputy Managing Director and Chief Financial Officer. "Our thanks go to David for his contribution and achievements over many years. We are delighted to welcome Tom to the senior management team, continuing on our path of long-term sustainable growth."



# Swissport appoints new leaders for the U.S. and Canada



**S**wissport appoints new leaders for the US and Canada. Nelson Camacho becomes CEO for the region. He will be driving Swissport's development in one of its largest, most important markets. Stacey Brown starts as regional Chief People Officer.

Nelson Camacho, formerly the company's Chief Operating Officer for Swissport in the US and Canada, has assumed the role of CEO for the region at the start of July. He took over from Frank Mena, who has retired after a 45-year career in the aviation industry, with 32 years dedicated to Swissport and its predecessor in the US.

Camacho will be driving the company's development in one of Swissport's largest and most important markets worldwide. Across the US and Canada, Swissport's aviation services are relied upon by over 300 airlines on a daily basis at more than 80 airports. In addition to its core business of passenger services and ramp handling, the company also provides aviation fueling, lounge hospitality and executive aviation services in the US and Canada.

"Our potential in the US and Canada is huge and we have been gearing up to grow our business – especially in the domestic arena where Swissport is not quite as well known yet," says Warwick Brady, President & CEO of Swissport International AG. "We want to anchor our brand as the preferred partners for airlines – from network to no-frills carriers in the US and Canada. I am pleased Nelson has taken over the lead on this exciting journey."

"I was honored to accept the role of CEO for the US and Canada," says Nelson Camacho. Working closely with Stacey, our new Chief People Officer, and the rest of our regional executive team, we will accelerate Swissport's growth and success, driven by collaboration, innovation and relentless focus on customer satisfaction."



## AAR names Andrew Schmidt Senior Vice President of AAR Digital Services and Trax

**A**AR CORP a leading provider of aviation services to commercial and government operators, MROs, and OEMs, has named Andrew Schmidt its Senior Vice President of AAR Digital Services and Trax.

Schmidt will work closely with the Trax founders and their leadership team to scale the Trax business by growing the customer base, enhancing customer support, and expanding product offerings through digital innovation. He will help to execute the Company's strategy for Trax, which includes building a foundation for a new parts ecosystem in coordination with AAR and parts suppliers and more broadly incorporating AI into Trax's offerings.

Schmidt brings more than 30 years of experience across aviation, finance, and digital solutions, including serving as AAR's Senior Vice President of Intelligent Solutions from 2011 to 2018. Under Schmidt's leadership, AAR acquired and integrated Airinmar® and launched PAARTSTM Store, bringing the Company's parts sales online to increase revenue and expand product reach to additional customers. In addition to AAR, Schmidt held various other senior-level roles, including with Seabury Capital, Macquarie Capital's Aviation and Aerospace Investments, and Oliver Wyman.

"Opportunities exist to more rapidly deploy Trax's entire portfolio of products and services for existing and new customers to realize operating efficiencies and productivity improvements in their workforces. We are determined to leverage Trax's position in the mobile software market and expand it to encompass autonomous enterprise solutions," said Schmidt. "I am excited to work with the Trax team to execute our shared vision."

"Andy has been involved in our relationship with Trax since the beginning and recognizes the opportunities that exist to strengthen Trax's foundation and potentially facilitate AAR's investments in other complementary digital applications and businesses," said John M. Holmes, AAR's Chairman, President and CEO. "We are excited about his support to grow the Trax business and position AAR's existing digital services for even greater commercial success."

## Textron Aviation Introduces All-New Interiors for Its Iconic Cessna Single-Engine High-Wing Piston Lineup

Textron Aviation announced significant enhancements to its iconic Cessna high-wing piston aircraft lineup — the Cessna Skyhawk, Cessna Skylane, Cessna Turbo Skylane and Cessna Turbo Stationair HD. Coming in 2024, customers will enjoy a range of new high tech standard features and sleek interior design options including modern and comfortable seating, updated instrument panels and new exterior paint styles.

“For decades, pilots have chosen the Cessna piston lineup for its durability, comfort and performance,” said Christi Tannahill, senior vice president, Customer Experience. “When designing the next interior for the iconic aircraft family, it was important that we include feedback from customers and fans. The result is a more modern, sporty feel that aligns with our family of Cessna Citation jets for the best aviation experience.”

The first change that customers will notice is an enhanced level of comfort and functionality throughout the aircraft. With new power headset jacks and charging ports at every seat (USB A and C device compatibility), upgraded seats with additional support and padding, and a brand-new center armrest for the Cessna Skylane, Turbo Skylane, and



Turbo Stationair HD models, customers will experience a whole new level of excellence in flight.

The lineup also offers exceptional style with top-notch performance. From the sleek black instrument panel to the new side panels, window locks and air vents, the aircraft is designed to make the flying experience even more exciting. Owners can select from a variety of modern standard paint schemes to customize their aircraft and make it their own. With decades of impressive performance, powerful capability and low operating costs, the Cessna piston lineup is the perfect choice for aviators — whether they’re taking their first solo flight or charting their next big adventure.

“Cessna pistons inspire the journey of flight,” said Chris Crow, vice president, Textron Aviation Piston Sales. “If you’re a pilot, odds are that you learned how to fly in a Skyhawk. This investment demonstrates Textron Aviation’s continued enthusiasm for our piston aircraft lineup, and we are thrilled to see these aircraft continue to support pilots worldwide in their training ambitions or mapping their next adventure.”

Customers and fans can experience the new interior for the first time when the company debuts the design in a Cessna Skyhawk at the upcoming 2023 Experimental Aircraft Association AirVenture in Oshkosh, Wisconsin.

## Second Gulfstream G800 Takes Flight

Gulfstream Aerospace Corp. announced the first flight of its second Gulfstream G800 flight test aircraft. The aircraft flew out of Gulfstream’s Savannah headquarters on a 30/70 blend of sustainable aviation fuel and marks a new phase in the G800’s path to certification and customer deliveries.

The G800 took off on Saturday, July 15, at 9:27 a.m., flew for 3 hours and 26 minutes and reached a top speed of Mach 0.935.

“Gulfstream’s flight test team continues to make advanced strides forward for our company,” said Mark Burns, president, Gulfstream. “The G800 will bring the



industry’s longest range to customers around the world, and we are seeing strong demand for this capability alongside the cabin comfort and quality Gulfstream is known for.”

The second G800 flight test aircraft is dedicated to environmental control systems, avionics and flight controls and builds on the more than 1,600 test points already accomplished by the first G800 flight test article.

“Thanks to the design philosophy behind our next-generation fleet, the G800 is also benefiting from the excellent progress we continue to make in the Gulfstream G700 flight test program,” Burns said. “This commonality helps us enhance efficiency and reliability for our customers, who are already seeing firsthand how well these aircraft perform.”

## Textron Aviation Announces Latest Garmin Avionics Software for 2024 Cessna Caravan Family

Textron Aviation announced avionics enhancements to the legendary Cessna Caravan family of turboprops — the Cessna Caravan and Cessna Grand Caravan EX. Coming in 2024, the most popular utility turboprop in the world will offer the latest Garmin avionics suite to deliver greater performance and improved user experience to pilots.

“We strive to provide excellent flying experiences for pilots, and this update for the Caravan demonstrates our commitment to incorporating the latest technology and innovation based on customer feedback,” said Lannie O’Bannon, senior vice president, Sales & Flight Operations. “We’re invested in the future of this legendary turboprop and the future of flight.”

Equipped with the Garmin G1000 NXi avionics suite, Caravan operators will experience an array of new advanced features and technology from Garmin. Notable additions that will come standard include the GDL 60 datalink, the GTX 345DR diversity transponder and the GI 275 electronic standby.

The GDL 60 will offer high-bandwidth data exchange and connectivity options, including



Bluetooth, Wi-Fi and LTE networks. The GDL 60 provides cockpit and personal electronic device connectivity, and external Wi-Fi and LTE networks for external connectivity while the aircraft is on ground. It also features the ability to complete automatic wireless database downloads over network connections. The GTX 345DR will offer ADS-B Out/In standard and will also include diversity antenna coverage. The ADS-B In applications available have been expanded with the GTX 345DR to include CAVS (CDTI Assisted Visual Separation) and ROA (Runway Occupancy Awareness). The GI 275 electronic standby provides a modern, sleek glass touchscreen display.

Caravan operators will have new optional

features available to them including the Garmin GWX 8000 weather radar, which adds Automode and Lightning and Hail Prediction. They will also have optional Taxiway Routing, which provides visual guidance for Caravan operators when maneuvering in the airport environment.

Previously existing optional features are being refreshed for Caravan operators as well. The Synthetic Vision Technology (SVT) refresh includes enhanced terrain, airport signs and runway depictions. The SVT refresh also introduces multiple viewpoints for the first time and integrates with the new Taxiway Routing feature to display routing guidance. Additionally, Sirius XM Weather through the GDL 69A SXM has been enhanced to include new products.

## Airshare Continues Growth, Plans to Double Fractional Challenger Fleet with New Agreement Featuring Bombardier’s Challenger 3500 Aircraft

Bombardier announced that Kansas City-based private aviation company Airshare has committed to ordering up to 20 additional Challenger 3500 aircraft. Through this new agreement, Airshare plans to double the size of their Challenger fleet, supporting the considerable demand they have experienced from the outset of launching the aircraft within their fractional program.

In May 2021, Airshare entered the super-midsize segment with an order for up to 20 Challenger aircraft. As the fast-growing private aviation company moves to exercise all options as part of that original order, this new incremental commitment to Challenger 3500 jets underscores that the smooth, efficient and reliable customer experience



that private aviation provides continues to garner significant market interest among the travelling public.

“The response we have received to the Challenger entering our fractional program has been tremendous, from both new and existing customers,” said John Owen, President and Chief Executive Officer of Airshare. “We are thrilled to extend our commitment with Bombardier and look

forward to adding several more Challenger 3500s to our fleet. The strength of our partnership made it easy for us to accelerate our plans to order more of these aircraft to meet customer demand.”

“The entire team is immensely proud that Airshare continues to trust Bombardier to grow its fleet,” said Eric Martel, President and Chief Executive Officer, Bombardier. “Airshare and Bombardier share several values in common: we strive for excellence and work tirelessly to offer an exceptional experience to our clients. With this new order, our valued relationship continues to grow stronger, as the award-winning Challenger 3500 aircraft keeps elevating Airshare’s flight experience with its ultimate combination of performance and comfort.”



Aviation Update Editor Kartikeya in conversation with

**Mr. Ramesh S. Ramakrishnan**  
Chairman of Transworld Group



**Q** Give us a brief history about Transworld Group; inception and key milestones?

**A** Transworld Group was founded in 1977 by my father, the visionary late Mr. R. Sivaswamy. What began as a shipping and logistics company has since evolved into a global conglomerate. Over the years, we have achieved several key milestones, including expanding our operations across the Middle East, India, the Indian subcontinent, the US, and the Far East. We have diversified our services to cover a complete range of end-to-end solutions, encompassing ship owning, ship management, freight forwarding, multi-modal logistics, project logistics, warehousing, e-commerce, integrated digital solutions, Real Estate and the latest feather to the cap Aviation. Our commitment to innovation, customer-centricity, and sustainability have been the driving force behind our growth.

**Q** Share some light on the various verticals of Transworld Group; which are the key ones garnering maximum sales?

**A** Transworld Group operates across various verticals, with ship owning being the key driver of our major business. We excel in shipping and logistics, managing an extensive fleet of vessels connecting major ports worldwide. Additionally, our freight forwarding services worldwide also form an integral part of our offerings. We also provide e-commerce and integrated digital solutions to optimize supply chains. Our new addition of luxury private jet service, Airavat, showcases our commitment to innovation and personalized experiences. We strive to provide exceptional services and embrace sustainability in all our operations.

**Q** Apart from the Middle East, which countries are

your key markets in terms of sales?

**A** While the Middle East has indeed been a crucial market for Transworld Group, we have established a strong presence in various regions around the world. India, with its vast potential and thriving economy, is a major market for us. Additionally, the US, Europe, and several countries in the Far East have significantly contributed to our sales across different business verticals.

**Q** What was the underlying idea behind launching Airavat Aviation? What are the future plans for Airavat?

**A** The idea behind Airavat Aviation was to create a luxury travel experience that not only catered to the opulent needs of our customers but also embraced sustainability. We recognized the growing demand for bespoke private aviation



services that align with environmentally conscious values. Looking ahead, our future plans for Airavat include expanding our fleet to cater to a broader clientele, introducing shared ownership models, and partnering with luxury travel enterprises to provide even more personalized in-flight experiences.

**Q** Please elaborate on the 'best-in-class luxury private jet service by Airavat Aviation'. What is the USP?

**A** Airavat Aviation prides itself on being a best-in-class luxury private jet service that redefines opulence and sustainability. Our USP lies in our commitment to providing hyper-personalized experiences, ensuring that every aspect of the journey is tailored to the client's preferences. From the moment they step aboard our state-of-the-

art aircraft, TJ Nakshatra and TJ Aakash, they are enveloped in unmatched comfort and elegance. Moreover, we have taken a proactive approach to offsetting our carbon footprint, making us a pioneer in environmentally responsible luxury travel.

**Q** Being from the aviation sector, how is the company making an effort in reducing carbon footprint?

**A** As a responsible aviation company, we are committed to minimizing our carbon footprint. Airavat Aviation has partnered with renowned organizations to plant trees for every flight we operate, effectively offsetting our emissions. Additionally, we continuously explore innovative technologies and practices that promote sustainability in our operations.

We believe that by taking these initiatives, we can contribute to the aviation sector's larger goal of achieving net-zero carbon emissions by 2050.

With India being a major market for Airavat Aviation, do you think this is going to positively impact the relationship between the two nations? Please elaborate.

Absolutely, Airavat Aviation's presence in India has the potential to positively impact the relationship between the two nations. By providing seamless and luxurious air travel options, we aim to further facilitate business connections and cultural exchanges between India and the Middle East. This increased connectivity will undoubtedly enhance collaboration and strengthen the Indo-Arab relationship, fostering mutual prosperity and understanding.



## Cirrus Aircraft Adds Auto Radar by Garmin® and Cirrus IQ™ Connectivity to the Best-Selling Vision Jet®

Cirrus Aircraft announced that Auto Radar powered by Garmin® and Cirrus IQ™ have been added as new advanced features on the world's best-selling personal jet, the Vision Jet. These upgrades now provide pilots with increased situational awareness and connectivity during all stages of pre-flight and inflight activities.

"Cirrus Aircraft incorporates intelligent and award-winning innovations into its ecosystem to make flying simpler, safer and more approachable for the pilot and passengers," said Zean Nielsen, Chief Executive Officer of Cirrus Aircraft. "The award-winning Vision Jet is a testament to our team's ongoing dedication to advancing the personal aviation industry. Over the years, the Cirrus Airframe Parachute System® (CAPS®) and Safe Return™ Autoland have revolutionized the Personal Aviation industry. Now with Auto Radar and Cirrus IQ connectivity, pilots have more situational awareness inflight and can streamline the preflight process."



Auto Radar allows the pilot to select the desired radar range which then automatically scans the area ahead and displays a composite, real-time depiction of the weather. By automatically selecting an optimal horizontal scan pattern and vertical tilt combination, the Auto Radar system works to create an in-depth view of the weather ahead. It volumetrically profiles areas of precipitation to provide the pilot with a real-time composite view of radar returns. The imagery is clear with a 16-color palette and improved automatic ground-clutter suppression.

Cirrus IQ is now available in the Vision Jet with the addition of LTE-enabled hardware. With the Cirrus IQ mobile app, pilots can proactively check key aircraft readiness items, updated after each flight from virtually anywhere in the world. These key items currently include the last known status of fuel and oxygen levels, aircraft location, flight hours, engine cycles and more.

Cirrus IQ makes aircraft ownership increasingly streamlined with features like Maintenance Minder and Technical Publications for owners to keep track of their aircraft maintenance intervals and stay up to date with any applicable technical publications for their aircraft. The My Trips and Achievements features automatically log each flight completed along with flight achievements. The Find Us feature allows owners to quickly locate Cirrus Aircraft Campuses, Cirrus Authorized Service Centers and Training Partners nearby directly within the app.

## McCauley's New High-performance Propeller for Beechcraft King Air B300 Series Achieves FAA Certification

McCauley Propeller Systems announced that its newest C780 propeller for the Beechcraft King Air B300 series, featuring four aluminum swept blades and a 105-inch diameter, has successfully achieved certification from the Federal Aviation Administration (FAA). The new high-performance propeller offers King Air B300 operators additional payload, increased takeoff and climb performance, reduced noise in the cabin and cockpit and greater time between overhauls.

"The McCauley C780 is a new, lightweight, scimitar blade design propeller that enhances the already legendary King Air flying experience," said Heidi McNary,



vice president and general manager, McCauley Propeller Systems. "We're proud to continue to offer customers the quality and craftsmanship that aviators have come to expect from McCauley over the past 85 years."

With the new C780 propeller, King Air B300 owners and operators will experience:

Propeller weight savings of more than 50 pounds

Increased takeoff and climb performance

Reduced noise in the cabin and cockpit

Extended Time Between Overhaul (TBO) of 5,000 hours or 72 months

Textron Aviation's 4,000 hours or 36-month limited propeller warranty

King Air B300 customers can have the propeller installed on their aircraft at a Textron Aviation Service Center or Authorized McCauley Service Facility without any additional modifications required.

# Daher's top-of-the-line TBM 960 turboprop-powered aircraft reaches its 80th delivery milestone



**D**aher announced the 80th delivery of a TBM 960, marking the latest achievement for this top-of-the-line member in the company's turboprop-powered aircraft product line. The milestone TBM 960 was provided to a private owner, and the delivery comes just over a year after Daher formally launched the aircraft version in April 2022.

As a symbol of this success, Daher's TBM 960 demonstrator aircraft is displayed on the company's exhibit stand (Booth #387-392) during this week's EAA AirVenture fly-in at Oshkosh, Wisconsin's Wittman Regional Airport. The airplane has Daher's distinctive "Sirocco" paint scheme, which includes black mask highlighting around the cockpit windows.

"Owners and operators praise the TBM 960's outstanding flight experience and increased cabin comfort, as well as the enhanced efficiency and sustainability," explained Nicolas Chabbert, the Senior Vice President of Daher's Aircraft Division. "It takes the maximum advantage of today's technology to provide digital control for the engine and the propeller, extending into the digitally-controlled cabin."

The TBM 960 marks Daher's fifth evolution of its TBM 900-series aircraft family – with a combined total of 488 aircraft to date in the TBM 900, TBM 910, TBM 930, TBM 940 and TBM 960 versions. This surpasses the delivery totals for the two previous-generation TBM aircraft types, with 324 TBM 700s and 338 TBM 850s provided to customers during their production runs.

In the TBM 960's Model Year 2023 configuration, its Garmin G3000® integrated flight deck is further enhanced with updated software. Additionally, Daher's continued focus on ergonomics for operational safety and situational awareness includes a control yoke activation button for the Garmin Electronic Checklists, and a repositioning of the altimeter setting button.

Key features of the TBM 960 include the new PT6E-66XT turboprop engine – purpose-built by Pratt & Whitney Canada for this aircraft, and Hartzell Propeller's five-blade composite propeller with the Raptor™ lightweight hub. Both the engine and propeller system are linked to the TBM 960's dual-channel digital Engine and Propeller Electronic Control System (EPECS).

With EPECS, the PT6E-66XT engine's startup is fully automated after a single-switch activation. The cockpit's power lever becomes an e-throttle, using a single forward position from takeoff to landing – with the EPECS optimizing powerplant performance throughout the flight envelope while reducing pilot workload by integrating all functions and protecting the engine's life.

The Hartzell propeller is fully integrated into the aircraft's propulsion system. It is specifically designed to reduce overall weight and improve the TBM 960's takeoff distance, climb and cruise speed. Turning at 1,925 rpm during maximum power output, the propeller contributes to limiting noise and vibration. Its sound level during takeoff is just 76.4 decibels, meeting the most stringent international noise standards.

In retaining the performance of Daher's TBM 900-series aircraft, the TBM 960's digital control enables the pilot to fly with more precise settings. At Daher's recommended cruise setting of 308 kts., the fuel consumption is only 57 U.S. gallons per hour – a 10 percent fuel economy compared to the maximum cruise setting for more sustainability.



Aviation Update Editor Kartikeya In conversation with

**Mr. Vivek Salvi**

**Sales Director for Aerospace and Defense  
and Transportation and Mobility verticals  
Dassault Systèmes India**



**Q** What is the Dassault Systèmes's vision and mission in India? What are the major achievement's so far?

**A** Dassault Systèmes has been in India for over two decades now. We identify ourselves as the 3DEXPERIENCE Company with a mission to shape the complete economic, value creation process leveraging our range of product portfolio. Dassault Systèmes, is completely aligned with the Make in India vision of the Indian government, and we aim to make for India first, from entire design ideation to manufacturing locally. We have a significant presence in the country, with headquarters in Bangalore and Delhi, as well as R&D labs in Pune and Bangalore.

We are experiencing phenomenal growth in India and tout the second largest R&D centre over here. We have provided software support to over 2000 hardware companies in India via our startup engagement program and have successfully set up the 3DEXPERIENCE Labs to strengthen the culture of innovation in the country.

Over the years, Dassault Systèmes has highlighted its role as a key contributor to modernizing and indigenizing the Indian aerospace ecosystem by enabling sustainability, self-reliance, and optimization through the 3DEXPERIENCE platform to seamlessly tackle the rising technological complexities within the Indian aerospace industry.

**Q** Tell us about the products offered by Dassault Systèmes, and their unique features to Aerospace & Defense Domain?

**A** Well, the aviation industry has shifted its focus towards reducing its carbon footprint and decarbonizing air travel. While there are numerous technological innovations available, such as sustainable aviation fuels, hydrogen fuel, and electrical aviation, we at Dassault Systèmes are working towards establishing the right ecosystem to help organizations effectively utilize these alternatives. Dassault Systèmes' 3DEXPERIENCE platform is making low-carbon flights a reality. The platform offers

tools for digital twinning, empowering organizations to create virtual representations of aircraft and power systems. These digital twins can be leveraged to simulate a range of energy sources and technologies like alternative fuels and electrification to evaluate how they perform in terms of fuel efficiency, emissions, etc. Furthermore, the platform is being used for designing aircraft structures that are lightweight and more aerodynamic and also to simulate the performance of advanced battery systems and electric motors.

The 3DEXPERIENCE platform is a great tool for collaboration. It supports cross-functional teams and partnerships among various stakeholders. This collaborative environment helps to accelerate the development of advanced energy-efficient solutions for aviation and ensure that they are robust, safe, and meet regulatory standards.

The aviation industry, with its strict regulations and focus on safety, has always had long waiting periods when introducing new technology. However, the latest technology, such

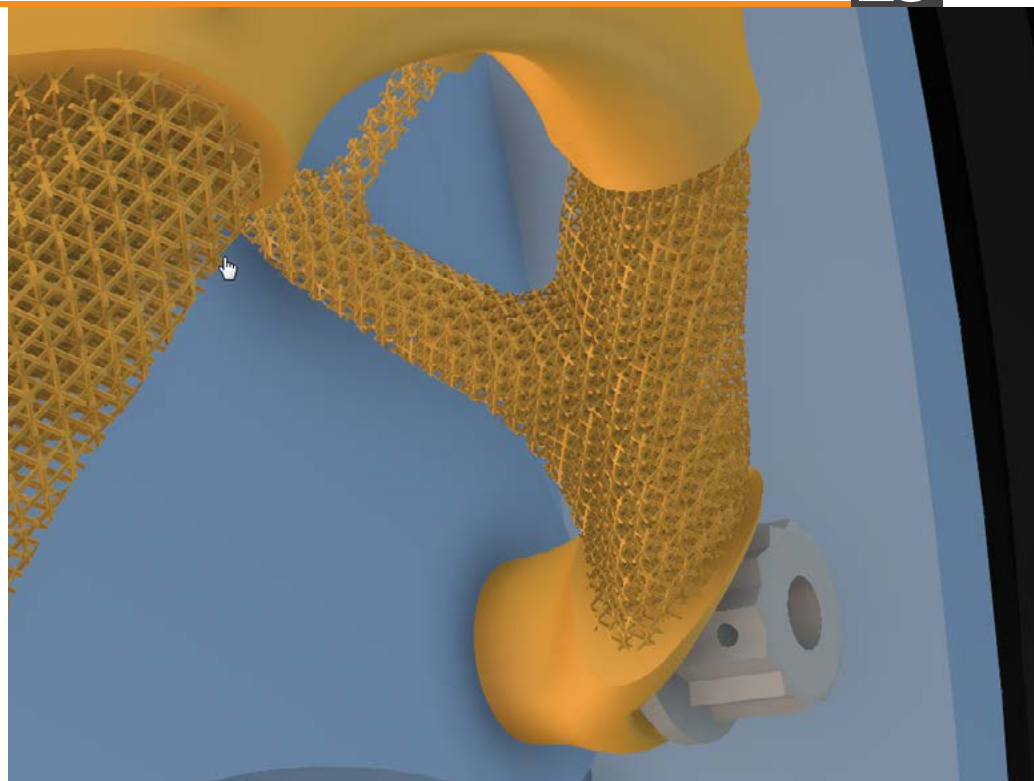
as additive manufacturing and 3D printing, is transforming the aviation industry by facilitating faster and more efficient production of lighter and more reliable aerospace components. These advanced technologies are revolutionizing the aerospace industry and significantly minimizing production timelines.

**Q Who are your large Defense & Aerospace customers in India?**

**A** National Aerospace Laboratories (NAL), a constituent of the Council of Scientific and Industrial Research (CSIR), India, is leveraging the 3DEXPERIENCE platform to design indigenous civil aircraft. The organization successfully minimized engineering costs incurred in cabin completion by as much as 40 percent through the automation of engineering, manufacturing, and certification processes. It also helped in augmenting brand perception and minimized the need for content creation by 40 percent across all passenger touchpoints for sales and marketing.

Similarly, India-based unmanned aerial systems (UAS) manufacturer General Aeronautics is also leveraging the 3DEXPERIENCE platform to attain cloud-based access to digital design and simulation applications in a single, secure collaborative environment that provides quick and easy deployment. A standardized approach to design and product development on the platform significantly minimizes design iterations, facilitating faster time to market.

**Q What are the complete advantages of being with the Dassault Systèmes compared with the other companies in the**



**market in the same domain?**

**A** Today, original equipment manufacturers (OEMs) and suppliers increasingly need to streamline operations, accelerate innovation, and transition to the factory of the future in order to achieve optimum efficiency and agility. This requires reimagining the entire process of how new air and space vehicles are conceptualized, designed, manufactured, tested, and certified. At Dassault Systèmes, we stand committed to supporting the industry with innovative 3D design and engineering solutions powered by our 3DEXPERIENCE platform.

As a market leader in the sector for over three decades, we have vast experience working with organizations of every size and helping them revamp their operational models, product blueprints, and product delivery roadmap.

Build to Operate ISE powered by the 3DEXPERIENCE platform, fast-tracks

meeting production targets and optimizes manufacturing capacity. The solution helps aerospace OEMs and suppliers in implementing lean practices, integrating new technologies and meeting demands without sacrificing either quality or schedule.

Ready for Rate facilitates flexible production while providing products with first-time quality on time and within budget. Lean practices can be implemented by Aerospace manufacturers by leveraging the 3DEXPERIENCE platform to remove waste in core areas of manufacturing. Defining and validating manufacturing processes down to individual work instructions virtually is possible in order to eliminate possible issues and waste prior to they occur.

Engineered to Fly enables small and medium suppliers to grow their business seamlessly. The 3DEXPERIENCE platform minimizes complexity and boosts collaborate during product development,

facilitating manufacturing process ramp-up.

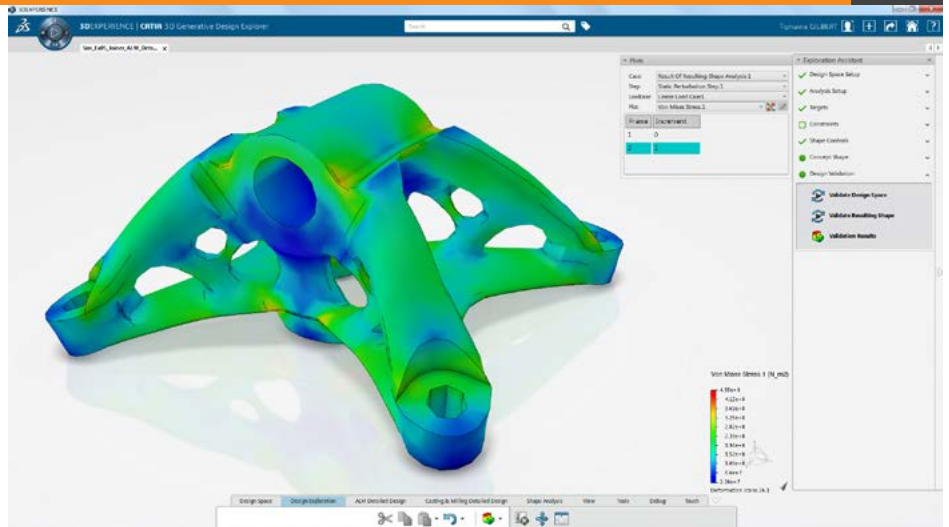
Reinvent The Sky enables startups, MSMEs and OEMs to develop disruptive solutions: from small, light aircraft to electric vertical take-off and landing. Organizations can fast-track the product lifecycle from concept to certification, and gain significant edge by being the first in the market with their prototype.

Co-Design to Target allows OEMs to assimilate distinct tools, organizations and processes into a single stream to enhance form, fit and function in an integrated System Digital Mock-up (DMU). This helps avoid several integration issues that significantly influence the cost and schedule of a program.

**Q How do you view the increasing competition?**

**A** Well, it's no secret that the number of companies competing for business in the aerospace and defense domain is rising exponentially, while original equipment manufacturers (OEMs) are demanding just-in-time delivery of components necessitating greater production flexibility from suppliers. Dassault Systèmes' Engineered to Fly industry solution offers driven and controlled execution enabling seamless collaboration with multiple OEMs, enhanced efficiency leveraging real-time project execution, automated processes, and optimized digital continuity through dedicated solutions.

'Engineered to Fly' offers seamless collaboration across design disciplines, especially when working with large assemblies. This industry solution along with the 3DEXPERIENCE platform offers a strong foundation to augment productivity and support the



growth of aviation sector in India.

We largely perceive competition in point solution. However, in today's fast-paced world, competition is everywhere. This is especially true in the Aerospace industry, where new technologies are constantly being developed to make travel safe and sustainable. To stay ahead of the curve, companies are now looking for collaborative solutions that can bridge the gap between different time zones, languages and organizations. Dassault Systèmes 3DEXPERIENCE platform provides all this and more. By consolidating all data and designing each subsystem with a unique, clear and clean configuration, the 3DEXPERIENCE platform offers unparalleled value to our clients that keeps us ahead of the competition.

**Q How Dassault Systèmes is bridging gap between Industry and academia?**

**A** In a bid to empower the workforce of the future, Dassault Systèmes is preparing students for the jobs of the future that goes beyond just design and simulations to AI-powered cloud, automation, and data analytics, leveraging virtual twin technology, aligned with Govt of India Skill initiatives.

We are working closely with numerous State Governments to set up dedicated 3DEXPERIENCE Centers of Innovation to offer the required training to the current and future generations of engineers in the Aerospace and Defense sector. We are committed to promoting the growth of the aerospace industry in the country through R&D. Recently, Dassault Systèmes signed an MoU with Tamil Nadu Industrial Development Corporation to launch the Tamil Nadu Centre of Advance Manufacturing in Chennai. The centre serves as an IT engineering ecosystem for students and startups across the state in industries such as aerospace, defense, and others. We have also introduced a new concept known as "Digital Trial Rooms" that aims to revolutionize the MSME sector in security infrastructure manufacturing. This "common shared infrastructure model," is basically an innovation centre where digital technologies are hosted by the government as well as Dassault Systèmes. La Fondation Dassault Systèmes is encouraging academic research, innovation and creating the workforce of the future, supporting hundreds and thousands of students to shape their career, and promoting entrepreneurial skills amongst school children.

## BAE Awarded Next Generation Launcher Design Contract

**B**AE Systems was awarded a \$37 million U.S. Department of Defense Ordnance Technology Consortium (DOTC) contract to design the Next Generation Evolved SeaSparrow Missile Launch System (NGELS). The company will support the NATO SeaSparrow Program Office (NSPO) to design and deliver prototype deck launching systems to support the U.S. Navy and allied countries with the Evolved SeaSparrow Missile (ESSM) ship self-defense system.

NGELS is a deck-mounted, fixed-angle launcher that leverages BAE Systems' Adaptable Deck Launcher (ADL) concept to store and launch ESSMs from Mk 25 missile canisters, which are also produced by BAE Systems. Easily integrated into large deck platforms, NGELS will support the fielding of the latest and most highly-capable ESSM missile, the Block 2 variant, a multi-role surface-to-air and surface-to-surface missile capable of protecting aircraft carriers and



other flat-decked ships against advanced air and surface threats. NGELS will use proven Mk 41 Vertical Launching System subsystems to deliver surface-to-air and surface-to-surface defense capabilities to aircraft carriers and amphibious ships in order to defeat missile threats.

"We have a long history of providing missile integration, launching systems, and canister design to the U.S. Navy," said Brent Butcher, vice

president of the weapon systems product line at BAE Systems. "NGELS leverages the expertise of our workforce to provide a ready-to-deploy system that enhances mission effectiveness and enables reliable ship defense for the U.S. Navy. We look forward to working with our customers to bring this enhanced capability to the fleet and introducing it to international users."

## Multi-Million Pound Contract to Equip RAF Typhoons With Latest Advanced Radar Capabilities

**T**he Ministry of Defence (MOD) has awarded BAE Systems a £870m contract to deliver a new radar to enhance the Royal Air Force's (RAF) Typhoon fighter jet fleet and strengthen the aircraft's control of the airspace whilst providing cutting-edge electronic warfare capabilities. The contract, awarded by the Ministry of Defence to BAE Systems, will see further development of technology and integration work on the European Common Radar System (ECRS) Mk2 radar by BAE Systems and Leonardo UK. The work is expected to lead to initial flight testing in 2024.

BAE Systems leads the overall design, development, manufacture and upgrade of the Typhoon aircraft for the UK and Leonardo is the lead for the aircraft's main sensing and survivability systems including its radar and defensive aids sub-system. The contract is part of the UK Government announcement made in July 2022, to invest £2.35 billion in the continued technology advancements in Typhoon capabilities, as recognition of its long-term role supporting national security and defence priorities.

"Typhoon is a fantastic aircraft which



continues to provide crucial support to defence and security operations around the world, including NATO air policing in Eastern Europe. The continued evolution of Typhoon as a world-class combat air platform ensures the RAF maintains its advantage and protects the vibrant eco-system that supports our sovereign combat air capability in the UK, through sustaining and evolving the technical skills central to the UK's future combat air strategy." Andrea Thompson, Managing Director – Europe & International at BAE Systems' Air Sector

"The ECRS Mk2 Radar programme will deliver world leading capabilities developed by our skilled engineers in both Edinburgh and Luton. We are extremely proud to be contributing in such a way to the safety and security of the United Kingdom as well as

ensuring that the UK is equipped to play a central role in next generation combat air programmes. ECRS Mk2 will not only provide critical capability to Typhoon but will also develop and sustain critical skills relevant to the Global Combat Air Programme." Mark Hamilton, Managing Director Electronics UK, Leonardo

Typhoon is a highly capable and extremely agile multi-role combat aircraft. It is capable of being deployed for the full spectrum of air operations, including air policing, peace support and high-intensity conflict. The RAF Typhoons are deployed alongside F-35B Lightning II to provide frontline capability for the UK.

The Typhoon programme supports more than 20,000 jobs across all regions of the UK every year, contributing £1.4 billion to the economy annually. The ECRS Mk2 radar programme sustains more than 600 highly-skilled jobs across the country, including more than 300 at Leonardo's site in Edinburgh, more than 100 electronic warfare specialists at the company's site in Luton, and 120 advanced engineers at BAE Systems' site in Lancashire.

## Textron Systems, Team Lynx OMFV Manufacturer, Moves Ahead To Program Phases 3 And 4

**T**extron Systems Corporation announced that the company will move ahead into Phases 3 and 4 of the U.S. Army's Optionally Manned Fighting Vehicle (OMFV), now known as XM300 combat fighting vehicle program as the designated manufacturer of Team Lynx, led by American Rheinmetall Vehicles. Team Lynx's OMFV offerings for the Detailed Design and Prototype Build & Test phases leverage Textron Systems' vehicle production capabilities based in Slidell, Louisiana.

A multidomain industry leader in air, land and sea platforms; weapon systems; electronic systems; propulsion; and test, training and simulation, Textron Systems has more than 50 years of armored vehicle expertise. The company's Slidell, Louisiana, facility has produced more than 10,000 vehicles for over 15 domestic and international programs. In addition, Textron Systems brings decades of experience in the design, manufacturing, systems integration and support for uncrewed and robotic platforms across air, land and sea.

"Textron Systems' combat vehicle



manufacturing facility, uncrewed and robotic platform experience, and highly skilled talent further strengthen the low-risk Team Lynx offering for the Army's next great American infantry fighting vehicle," said Senior Vice President Land Systems and Sea Systems David Phillips. "Already honored to support numerous U.S. Army modernization programs across domains, we stand ready to deliver an OMFV that delivers decisive overmatch."

The Team Lynx OMFV is designed to achieve the Army's combat vehicle

modernization priorities, but with an open systems architecture that will enable persistent modernization to support infantry formations for years to come. In addition, a modular design and powerful new chassis enable the system to meet rigorous operational demands in a variety of vehicle configurations. Developed and manufactured in America, Textron Systems and American Rheinmetall Vehicles are joined on Team Lynx by Raytheon Technologies, L3Harris Technologies, Allison Transmission and Anduril Industries.

## Indra to Strengthen Eurofighter's Survivability

**I**ndra is furthering the integration of one of the most important elements for the evolution of the system that protects the Eurofighter Typhoon against enemy missile attacks and radar. The company will enhance the Praetorian DASS's bandwidth to increase the aircraft's ability to detect threats and fly safely during its most complex missions.

At the Royal International Air Tattoo (RIAT), the world's largest military air event, Leonardo, on behalf of the EuroDASS consortium (Leonardo, Elettronica, Indra and Hensoldt), announced the next package of improvements to the Praetorian DASS self-protection system. This has been accompanied by a static exhibition of the key enhancement proposed, including the bandwidth enhancement developed by Indra.

These improvements will be presented to the Eurofighter Typhoon partner countries, which are



Germany, Spain, Italy and the United Kingdom, and subsequently offered to export customers. Their development will increase the survivability of the aircraft and lay the foundations for the defence system's integration with Typhoon's highly capable E-scan radars. This includes the ECRS Mk1 that is being developed by Hensoldt and Indra with the support of Leonardo for the German and Spanish Air Forces, the ECRS Mk2 currently under development by Leonardo and BAE Systems with the participation of Indra for

UK Typhoons and the ECRS Mk0, which is in operation in Kuwait and Qatar

Indra's Defence Platforms director, Pedro Barco, highlighted that "Indra is the second-largest supplier of avionics systems for the Eurofighter Typhoon and the only company involved in the evolution of the self-protection system and the development of the two new versions of the radar, once again highlighting the company's ability to accelerate the development of the new generation of technologies that European armed forces are demanding".

In addition to the greater bandwidth, the new Praetorian DASS will incorporate a new advanced digital signal processing, jointly developed with the EuroDASS partner Hensoldt, and new signal processing algorithms, as well as increased processing speed, capacity and memory.



# PHASA-35 Completes 1st Successful Stratospheric Flight



**B**ritish engineers have successfully completed a stratospheric flight trial of BAE Systems' High Altitude Pseudo Satellite (HAPS) Uncrewed Aerial System (UAS) - PHASA-35. Over a 24-hour period, PHASA-35 soared to more than 66,000 feet, reaching the stratosphere, before landing successfully. The trial, completed last month in New Mexico in the USA, allowed engineers to assess the performance of the experimental solar-electric drone within the outer-reaches of the planet's atmosphere.

The flight marks a significant milestone in PHASA-35's development which began in 2018. Designed by BAE Systems' subsidiary Prismatic Ltd to operate above the weather and conventional air traffic, it has the potential to provide a persistent and stable platform for various uses including ultra-long endurance intelligence, surveillance and reconnaissance, as well as security.

It also has the potential to be used in the delivery of communications networks including 4G and 5G and could be used in a wide range of applications, such as disaster relief and border protection, as an alternative

to traditional airborne and satellite systems.

The PHASA-35 programme sits within FalconWorks™, a new centre for advanced and agile research and development within BAE Systems' Air sector, designed to deliver a range of cutting-edge combat air capabilities to the UK and its allies. PHASA-35, which has a 35-metre wingspan and carries a 15kg payload, uses a range of world-leading technologies including advanced composites, energy management, solar electric cells and photo-voltaic arrays to provide energy during the day which is stored in rechargeable cells to maintain flight overnight.

The successful trial assessed the performance of the experimental system across a range of areas. It is the first in a series of trials planned to confirm system performance, support development activities and validate test points to enable PHASA-35 to be made available in defence and commercial markets internationally.

"This is a fantastic achievement for everyone involved and shows the commitment of BAE Systems to invest in new technologies and markets. PHASA-35's

first stratospheric flight demonstrates that this vehicle is on track to become the go-to system for long endurance, high altitude and communications applications in the future. The successful trials are a testament to the hard work of the fantastic team that we have built over the last couple of years within Prismatic and across our partner companies including Piran, Amprius, Microlink, Honeywell, PMW Dynamics and the Met Office. I look forward to the next steps as we develop this unique system." Dave Corfield, CEO of Prismatic Ltd

"PHASA-35 is breaking new ground - opening up the stratosphere to new possibilities. The team, which brings together BAE Systems' know-how from across the globe with innovative solar and power management technologies, demonstrated tremendous commitment and ambition as they tackled the challenges associated with novel technologies and approaches. This partnership approach is key to our ability to enhance our defence expertise with new thinking and technologies." Cliff Robson, Group Managing Director for BAE Systems' Air Sector.

# L&T and Navantia Sign a Teaming Agreement for Project 75 (India) Submarine Program



Larsen & Toubro and Navantia, Spain signed a Teaming Agreement (TA) today for the purpose of submission of a techno-commercial bid for the Indian Navy's prestigious P75 (India) submarine program. The agreement was signed in the presence of Mr S N Subrahmanyam, L&T CEO & MD and Mr Augustin Alvarez Blanco, Naval Construction Vice President, and Member of the Board – Navantia. Also present at the occasion were H.E. Mr José María Ridaó Domínguez, Ambassador of Spain in India and Captain (Navy) Fernando Alvarez, Spanish Defence Attaché, along with senior officials from both L&T Defence and Navantia. The event was held in the premises of the Spanish Embassy in New Delhi.

Project 75 (I) requires the Indian bidder to tie up with a Foreign Collaborator (FC) and execute the program for delivery of six conventional submarines equipped with Air-Independent Propulsion (AIP), while achieving targeted Indigenous Content. Expected to be valued at over Euro 4.8 billion, the project is the India's largest defence acquisition project. This would also be followed by a 30-year lifecycle sustenance contract of similar value. P75(I) would be the first program to be processed under the ambitious Strategic Partnership (SP) model of acquisition of the Ministry of Defence. L&T and Navantia signed an MoU for

the program on 11 April 2023 at Madrid, which has now culminated in this TA.

As per the agreement, Navantia would carry out the design of P75(I) submarines based on its S80 class of submarines, the first of which was launched in 2021 and is undergoing sea trials prior to its delivery to Spanish Navy at the end of 2023. Apart from S80 class, Navantia has been involved in design and construction of Scorpène class of submarines together with DCNS (Now Naval Group) of France, which have been exported to Chile and Malaysia. Navantia has also been involved in the Scorpene submarines (Kalvari class) built in India including handholding of the Indian yard.

P75(I) program calls for integration of an AIP system. Navantia's state-of-the-art 3rd Generation AIP solution is the most advanced and efficient AIP system in the world, apart from also being the most compact, easiest to exploit and maintain and environment friendly. It uses bioethanol as a source of hydrogen which is known to be cost efficient, easily available, and does not call for any special infrastructure. High density of hydrogen in ethanol improves the AIP system's efficiency. Ethanol, being in liquid form, eliminates the risks associated with storing hydrogen. In addition, wide availability of ethanol enables the system to be refueled

anywhere in the world.

L&T and Navantia are also seeking cooperation in other military programmes as well as in green energy opportunities, including offshore wind through Navantia Seanergies division.

Commenting on the occasion, Mr S N Subrahmanyam, CEO & MD, L&T said, "L&T is proud to collaborate with Navantia for this prestigious program of strategic importance for the nation's security. Navantia's glorious 300-year-old track record in naval construction & technical expertise gives us a competitive advantage in this program and offer the Bio-Ethanol Stealth Technology (BEST) and environmentally Green AIP solution. We are committed to providing the most contemporary solution for Indian Navy's requirements at a competitive price."

Mr Alvarez Blanco commented, "It gives us great joy to be in a position to be the design and technology partner for P75 (I). We are also in collaboration with L&T for the Landing Platform Dock (LPD) program whose tender is eagerly awaited. With these two prestigious programs for the Indian Navy, Navantia is proud to be making a key contribution towards fulfilling the defence needs of India, a nation with which Spain shares excellent relationship."

# GMR Hyderabad Aviation SEZ Limited signs Lease Agreement with Safran Aircraft Engines for MRO

**G**MR Hyderabad Aviation SEZ Limited (GHASL), a 100% subsidiary of GMR Hyderabad International Airport Ltd. (GHIAL) has recently signed a Land Lease Agreement with Safran Aircraft Engines Services India Pvt. Ltd (SAESIPL), a subsidiary of Safran, a global leader in aircraft propulsion and equipment, space and defence markets with their Headquarters in Paris, France. As per the agreement, GMR Hyderabad Aviation SEZ Limited (GHASL) will lease land to Safran who will build and operate the Engine MRO facility for LEAP turbofan engines. Spread across 23.5 acres of the land parcel within SEZ area of GMR Aerospace & Industrial Park, this facility will occupy around 36,500 sqm of built-up space.

The construction of the facility will commence in September 2023. The facility is expected to be handed over in December 2024. This facility in Hyderabad will be the largest MRO center in the Safran Aircraft Engines network. Operations are set to commence in 2025 and will provide employment to about 1000 workers at its peak operation capacity. The facility will adhere to Safran's most stringent standards for industrial processes and machinery, including cutting-edge technologies like the latest integrated inspection methods and real-time monitoring of the maintenance shop process's parameters. The new facility will operate on 100% sustainable green



energy utilized from the GMR Solar farm.

SAFRAN is operating two Industrial facilities for Cable Harnessing and Aircraft Engine Component manufacturing within SEZ area of GMR Aerospace & Industrial Park. In addition, CFM, a JV of Safran with GE, is operating an Engine Maintenance training facility at the Park.

Commenting on this development, Mr. Aman Kapoor, CEO GMR Airport Land Development, says, "We are excited to announce that Safran has chosen GMR Industrial Park after a thorough Global assessment and has entered a lease agreement to set up one of the largest Engine MROs in the world. The facility will initially have the capacity to service 100 engines per annum, which will gradually increase, to around 300 engines by 2035. It will also generate ample employment opportunities in the state of Telangana."

Mr. Nicolas Potier, Vice President Support & Services of Safran Aircraft Engines, states,

"I extend my congratulation to GMR on being selected to provide the location for our new MRO shop in Hyderabad. This MRO project, which is a significant investment in our future in India, will bring additional key capacity to support the operations of our airlines customers and will also contribute to the extension of the aeronautical ecosystem in the Hyderabad International Airport area."

GMR AeroCity Hyderabad has a distinct integrated mixed-use multi-asset Ecosystem across Commercial Offices, Retail, Aerospace and Industrial Park, Educational Institutions, Hospitality, Healthcare, Entertainment and Rental Accommodation. The unique value propositions offered by the AeroCity has already attracted leading businesses from across the globe including Amazon, Pratt & Whitney, CFM, Safran, Schneider Electric, ESR, OSI, Schulich School of Business, NIPRO, Decathlon, Invesco and Multisorb among others.

# Air India finalizes LEAP engines order and signs services agreement

**A**ir India and CFM International have finalized the order of LEAP engines that will power the airline's new fleet of 210 Airbus A320/A321neos and 190 Boeing 737 MAX family aircraft, which was first announced in February. Both companies also signed a multi-year services agreement that will cover the airline's entire fleet of LEAP engines.

Air India has been a CFM customer since 2002, when the airline began operating Airbus A320ceo aircraft powered by CFM56-5B engines. In 2017, Air India began operating A320neos, becoming the first LEAP-1A powered operator in India. The airline currently has 27 LEAP-1A-powered A320neo family aircraft in its fleet.



"We are delighted to celebrate with CFM a major deal that will play a key role in our future development," said Campbell Wilson, CEO and Managing Director of Air India. "The introduction on a greater scale of the LEAP engine as well as our services agreement will help us to optimize our operations in terms of

environmental footprint and operational cost, while benefiting our customers."

"The renewed trust of Air India is a major milestone in CFM history," said Gaël Méheust, President and CEO of CFM International. "This order strengthens our presence in India and commits us to further support Air India's development with the best CFM standards in terms of reliability, efficiency and customer support."

The LEAP engine family has achieved one of the fastest accumulations of flight hours in commercial aviation history, amassing more than 35 million engine flight hours and 15 million flight cycles.

## Safran and HAL to Form JV Company to Co-design and Produce New Generation Helicopter Engines in India

Safran Helicopter Engines and Hindustan Aeronautics Limited (HAL) have decided to set up their new joint venture company in Bangalore, India. It will be dedicated to the design, development, production, sales and support of helicopter engines, with first objective to build the most adequate propulsion solution for the Indian Ministry of Defence's (MoD) future 13-ton IMRH (Indian Multi-Role Helicopter) and its naval version DBMRH (Deck Based Multi-Role Helicopter). This joint venture will be India's first engine design and manufacturing in house.

This decision was achieved thanks to a dynamic common work cycle between the two companies, following a Memorandum of Understanding (MoU) signed on 8th July 2022 and an agreement on workshare reached between the two partners during Aero India 2023.

The collaboration the Indian and French Aerospace majors is clearly supporting the development of the aerospace strategic roadmap between the two countries while once again endorsing the Indian Government's



vision of "Atmanirbhar Bharat" - particularly in defence technologies. Safran Helicopter Engines and HAL see this joint venture as a natural further step in their robust, well balanced and growing relationship.

Mr. Cedric Goubet, Safran Helicopter Engines CEO, said: "We at Safran Helicopter Engines are truly elated to partner with HAL and India to craft this new turboshaft engine joint venture set to address the Indian market and also future export opportunities. It marks a turning point in not only the longstanding relationship between our two companies but also between India and France. Together we will remain fully dedicated to our customers in India, proud to designing and producing

new efficient helicopter engines."

Mr. C.B. Ananthkrishnan, CMD, HAL said: "Safran Helicopter Engines has been our valued partner for several decades. We both have embarked on a new journey, leveraging HAL's experience in manufacturing of more than 15 types of aircraft and helicopter engines and Safran Helicopter Engines' expertise in designing turboshaft engines. The objective is to co-develop and co-produce turboshaft engines in India - with immediate focus on IMRH and DBMRH. This partnership will engage and harness the Indian Defence manufacturing ecosystem towards realising Atmanirbhar Bharat vision of our Honble PM".

## 1st 2 H225M Helicopters Delivered to Hungary

The Hungarian Defence Forces have received the first two of 16 H225M multi-purpose helicopters on schedule. The helicopter was officially handed over at Szolnok Airbase by Bruno Even, CEO of Airbus Helicopters.

"I am very happy that we have delivered the first H225Ms to Hungary today," said Bruno Even. "The Defence Forces are receiving a combat-proven, multi-role platform, which is the latest version of a very successful helicopter family. Together with the light twin engine H145M, which is already in operation, Hungary now has a modern helicopter fleet that can fly a broad range of military missions, and we are proud that they decided our helicopters were the



right choice for their extremely important operations."

Additionally, Airbus is also providing

an extensive training and support package to ensure the highest level of operational availability.

The H225Ms selected by Hungary are equipped with state-of-the-art communication capabilities and will be used for transport, combat search and rescue, and special operations missions. Its advanced avionics and four axis autopilot, exceptional range and payload capacities, combined with a large cabin designed to carry up to 24 troops and powerful air- to-ground and air-to-surface armament as well as electronic warfare systems allow the H225M to carry out the most demanding missions. The helicopter has an all-weather capability supported by its night vision goggle compatibility.

# Boeing Transitions to New CH-47 Chinook Production with Final Block I Contract



As part of a U.S. Department of Defense Foreign Military Sale (FMS), Boeing received a contract to produce 18 CH-47F Block I Chinooks for South Korea and one additional aircraft for Spain. As Boeing continues transitioning to building the advanced Block II configuration, the deal valued at up to \$793 million represents the final aircraft to be ordered on the current CH-47F Block I FMS contract with the U.S. government.

“The CH-47F Block I Chinook continues to be the preeminent heavy-lift helicopter in the world for good reason,” said Heather McBryan, H-47 vice president and program manager, Boeing Vertical Lift. “While this concludes Block I orders as we continue our modernization efforts, we’ll continue supporting our customers’ aircraft as they play a vital role for years to come.”

Although production and deliveries of the CH-47F Block I will conclude with this order in 2027, Chinook modernization efforts will continue with the already underway H-47 Block II program. Block II provides increased lift and range thanks to an improved drivetrain, a reinforced airframe and redesigned fuel tanks. Currently, six Block II aircraft are under contract with the U.S. Army, 36 with U.S. Army Special Operations Command (SOCOM) and 14 with the United Kingdom. SOCOM have been receiving Block II aircraft for several years and the U.S. Army will receive its first CH-47F Block II in early 2024.

“The Block II program is the natural successor to an already exceptional aircraft,” McBryan added. “It will provide the U.S. Army and international allies even more capabilities in a complex and evolving battlefield.”

Block I and Block II aircraft will coexist in the heavy-lift space. With this latest acquisition of Chinook Block I aircraft, Spain will increase its fleet to 18 aircraft and South Korea will join 15 other operators who benefit from the digital cockpit and advanced cargo handling ability.

“South Korea adds to a growing list of operators around the globe that recognize the value the modernized CH-47F Chinook brings to the table,” said Vince Logsdon, vice president, Global Business Development and Strategic Marketing for Boeing Defense, Space & Security. “While Spain is already reaping the benefits of the aircraft in Europe, we are honored to support South Korea’s heavy-lift helicopter modernization with a versatile product capable of meeting the demanding mission requirements in Asia Pacific.”

# Bell Expands H-1 Advanced Maintenance Training Academy for USMC



What does Marine Corps Air Station (MCAS) Camp Pendleton, MCAS Futenma, Bell's Amarillo Assembly Center, and Bell's Repair and Overhaul Center have in common? They are all locations where U.S. Marine Corps aircraft maintainers come to receive top-of-the-line maintenance training for the Bell H-1 aircraft line. Bell has launched its H-1 Advanced Maintenance Training Academy (AMTA) to provide long-term fleet support through a week-long, interactive training program taught by Bell H-1 maintenance instructors and specialists. The training is an immersive experience coupled with 3-D courseware and hands-on technical instruction for routine maintenance repairs on items such as flight controls, gearboxes, swashplates, and both rotor blades.

"Through the H-1 AMTA, Marine maintainers can take the training knowledge

that they receive here and implement it directly on the H-1 flight line, ensuring mission-focused fleet readiness at all times," said Steve Rudat, H-1 AMTA instructor, Bell.

Marine maintainers from various Marine Aviation Logistics Squadrons (MALS) and Marine Light Attack Helicopter Squadrons (HMLA) located around the world, including MALS-29, MALS-39, HMLA-167, HMLA-169, HMLA-267, HMLA-367, HMLA-369, and HMLAT-303, have attended the H-1 AMTA offered at one of the participating locations.

Most recently, MCAS Camp Pendleton was added to the list of locations that host the H-1 AMTA.

"The goal of the AMTA is for Marines to develop a deeper understanding of the H-1 platform and how the different aircraft systems function together. Whether they are at their home squadron or deployed on a

mission, our AMTA program provides H-1 Marine maintainers with the skills to keep their aircraft on the flight schedule," said Bryan Riley, H-1 fleet support manager, Bell.

Since its launch, over 100 Marine maintainers have successfully completed the training program.

"At Bell, we are committed to providing top-tier after-market support to our customers, and this is one of the key ways that we can support the mission of the HMLA community," said Nate Green, H-1 program manager, Bell.

The Bell H-1 line is purpose-built to support the U.S. Armed Forces. Bell continues to modernize the Bell AH-1Z Viper and Bell UH-1Y Venom to serve the future generations of warfighters. The current line of the Viper and Venom have proven to be two of the most agile, dependable, and interoperable aircrafts on the market.

# World First 100% SAF Transatlantic Flight Taxis Closer to Takeoff

Virgin Atlantic led consortium confirms the world's first 100% Sustainable Aviation Fuel flight across the transatlantic will fly on 28 November 2023, pending further regulatory approvals and testing. SAF blend of 88% HEFA and 12% aromatics completes successful ground test on Rolls-Royce Trent 1000 engine, a key milestone in approvals process

Fuel supplier announced as Air bp and Virent, who will supply the 60 tonnes of SAF required for project

Virgin Atlantic and Rolls-Royce confirm the successful Sustainable Aviation Fuel (SAF) blend ground test on the Rolls-Royce Trent 1000 engine. The test marks a key milestone in the project which will see the world's first 100% SAF flight travel across the Atlantic from London Heathrow to New York JFK on a Boeing 787, set to take off on 28 November 2023.

In addition to the test, fuel suppliers Air bp and Virent have been announced to supply the 60 tonnes of SAF to be used in the world first, supporting consortium research, testing and the flight itself. The SAF will be produced through the Hydroprocessed Esters and Fatty Acids (HEFA) pathway as well as synthetic aromatic kerosene (SAK) SAF at an 88% and 12% blend ratio.

Virgin Atlantic is committed to finding more sustainable ways to fly on our mission to Net Zero 2050. Already operating one of the most fuel and carbon efficient fleets across the Atlantic, this flight builds on the airline's 15-year track record for leading on SAF. Demonstrating that through radical collaboration, industry can deliver 100% SAF in today's engine, airframes and fuel infrastructure for long haul flight. But collectively the industry must go further, to develop a UK SAF industry and meet aviation's 10% SAF by 2030.

SAF typically delivers CO2 life cycle emissions savings of more than 70% whilst performing like traditional jet fuel. SAF has a fundamental role to play in aviation's decarbonisation and pathway to Net Zero 2050. Today, SAF represents less than 0.1% of jet fuel volumes and fuel standards allow for just a 50% SAF blend in commercial jet engines. The one-off Virgin Atlantic flight in November will demonstrate the potential of SAF as a 100% drop-in replacement for fossil fuel today.

The realisation of the 100% SAF transatlantic flight taking to the skies is a challenging task



requiring cross industry collaboration and dedicated project teams working on the research, testing and operations to make it happen. The Virgin Atlantic led consortium, joint funded by the Department for Transport, includes Rolls Royce, Boeing, University of Sheffield, Imperial College London and Rocky Mountain Institute. The successful bench engine test is a key milestone, however further permissions and safety approvals are required for the flight to take off in November.

Virgin Atlantic and the consortium will leverage the 100% SAF transatlantic flight to further SAF use, as well as addressing other environmental impacts of the sector. The project will demonstrate further reductions in CO2 from operational efficiencies, contribute to research and development into the non-CO2 effects of flying, and provide an end-to-end life cycle analysis of the flight. Any residual CO2 emissions from the flight will be mitigated using innovative carbon removals from biochar projects.

Shai Weiss, CEO, Virgin Atlantic, commented: "The 100% Sustainable Aviation Fuel transatlantic flight will be a historic moment in aviation's roadmap to decarbonisation. Alongside fleet transformation, SAF is the most readily available way for our industry to decarbonise, but currently there's not enough supply and without it and the radical collaboration required to produce it, we can't meet our 2030 targets. We need UK government support to create a UK SAF industry to allow for every single flight out of the UK to operate with 100% SAF – if we make it, we can fly it."

Rob Watson, President – Civil Aerospace, Rolls-Royce, said: "We are incredibly proud that our Trent 1000 engines will power the first ever flight using 100% Sustainable Aviation Fuel across the Atlantic. Confirming that we have successfully completed the ground test of the Trent 1000 engine today, using the chosen 100% SAF blend, gives us increased confidence for the engine's performance and operation ahead of the flight this November. The flight will represent an incredible milestone for the entire aviation industry in

its journey towards net zero carbon emissions."

Aviation Minister, Baroness Vere of Norbiton, commented: "A year on from the launch of our Jet Zero Strategy, I'm delighted that Virgin Atlantic has confirmed the first ever transatlantic flight powered solely by Sustainable Aviation Fuel will take off this winter. Thanks to government funding, this flight will be a huge step towards net zero and showcase the potential of SAF – creating jobs and helping to grow our economy."

Andreea Moyes, Global Head of Sustainability, Air bp, said: "We are thrilled to be supplying Sustainable Aviation Fuel for the world's first 100% SAF transatlantic flight. SAF is currently the most viable option to help us meet the industry's net zero ambition and in the short and medium term it will be the only option for long-haul flights. Moving our industry and policy towards the use of 100% SAF is important as we work in collaboration with key stakeholders to help decarbonize aviation."

Dave Kettner, President & General Counsel, Virent said: "With Virent's plant-based Synthesized Aromatic Kerosene (SAK) providing essential fuel components, this test showed that 100% drop-in renewable fuel is cleaner burning and will work seamlessly in today's commercial airline engines. We're honored to collaborate with Virgin Atlantic, Rolls-Royce and Air bp as these forward-looking companies lead the way in sustainable aviation. Virent shares their commitment to finding sustainable ways to fly, and we're excited about the pivotal role our BioForm® SAK plays in making that goal a reality."

Sheila Remes, Vice President, Environmental Sustainability, Boeing said: "Boeing is proud to provide technical expertise and support for this testing as we gear-up for Virgin Atlantic's flagship Boeing 787 Dreamliner to make the first 100% SAF transatlantic flight. We look forward to continuing to work with our project partners on this journey, taking one more step towards a sustainable future of flight."

# Aviation Psychology: A Study That Promises Safer Skies



**T**his article encapsulates the essence of Aviation Psychology, its historical context, global perspective, and specific relevance to India's burgeoning aviation industry. By weaving in compelling examples, key concepts, and thought-provoking questions, it aims to engage readers and inspire action towards a safer and more competent aviation landscape in India.

From the dawn of flight, aviation psychology and human factors have played a crucial role in enhancing aviation safety. These intertwined disciplines have their roots in the early days of aviation, initially emerging during World War I within military contexts, and subsequently expanding into civil aviation. The scope

of their application has grown far beyond the initial selection and assessment of pilot competencies (a focus of aviation psychology) and the design of aircraft to minimize pilot error. Today, they encompass a broad range of practices and principles that contribute to the overall safety and efficiency of the aviation industry.

Following the Germanwings tragedy in 2015, the aviation psychologists (AVPSY) and aviation human factors specialists (AVHFS) have received extra attention from both governmental and aviation industry organizations. This brought Aviation Psychology to the forefront.

In aviation, competency is more than a buzzword; it's a multifaceted concept

comprising Knowledge, Skills, and Attitudes (KSA). Organizations like ICAO and IATA have embraced this model, recognizing that true mastery requires a holistic approach. The triad of competence—Knowledge, Skills, and Attitudes—forms the cornerstone of success in complex social practices. This philosophy guides individuals towards mastery, from pilots to air traffic controllers.

While reviewing the associated job descriptions, tasks, and job requirements of worldwide Industry experts on aviation psychologists and human factors specialists It was noticed that almost all of them have the term human factors (HF) or human performance (HP) in the job title, rather than aviation psychology.





Examples of job titles related to Human Factors include HF Manager, HF Engineer, and HP Specialist. Job titles and descriptions related to psychology were Occupational Psychologist (OP), Company Psychologist, and Aviation Psychologist. Most roles were related to both academic prerequisites (e.g., a minimum of a bachelor's degree) and a minimum work experience of between 4 and 6 years. Job requirements and tasks varied greatly including the most common operational tasks such as crew resources management (CRM) for aircrew, non-technical skills (No-Techs) assessment, selection, flight deck design, HF methods, safety management system (SMS) activities, and occurrence investigation. Only three job roles were submitted with predefined KSAs.

The submitted job roles and descriptions provided a definition of tasks and responsibilities but did not further define or specify associated competencies. It was also apparent that most jobs are labelled using HF or HP rather than psychology indicating a great overlap of both professions. If psychology was in the job title, the role referred to work and organizational (occupational) psychology (OP) rather than aviation psychology.

Interestingly, most roles required both academic prerequisites, such as a minimum of a bachelor's degree, and work experience ranging from 2 to 4 years. The tasks and requirements varied widely, encompassing operational tasks like crew resources management (CRM) for aircrew, non-technical skills (No-Techs) assessment, flight deck design, HF methods, safety management system (SMS) activities, and occurrence investigation.

In India, Directorate General of Civil Aviation (DGCA), wants to establish a culture of better evaluation of the mental well-being of flight crew and air traffic controllers (ATC). Given the high-stress levels for these positions, the regulator has proposed new guidelines. DGCA has asked airlines and airports to hold pre-employment psychological assessments, which will first be "validated and performed or overseen by a clinical psychologist with acquired knowledge in aviation relevant to the operating environment."

This brings me to a few thought evoking questions on the role of Aviation Psychologist in our industry. Should the Aviation Psychologist be an occupational psychologist or human factors specialists? What key competencies (knowledge,

skills, attitudes) are expected from an occupational psychologist or human factors specialists in the day-to-day work in your organization?

When there is no training organisation in India imparting training on Aviation Psychology should the Airlines/MROs/ATCOs initiate this training for departmental subject matter experts (e.g., Diploma course for Organisation safety department) Or should the requirements be issued by the regulatory body?

The concept of Aviation Psychology has evolved since 1915, and it's time for India to embrace this vital field. As the nation's aviation industry continues to grow, the implementation of Aviation Psychology will ensure a safe and efficient future. The sky is not the limit; it's just the beginning.

About the Author: Capt. Shashank Saraav is the CEO of SkyJets International Private Limited and brings extensive experience to the aviation industry. He served as a Senior Flight Operations Inspector at the Flight Standard Directorate, DGCA India. With a deep understanding of aviation training and safety, Capt. Saraav continues to contribute to the advancement of the industry.



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