

# Aviation

## UPDATE

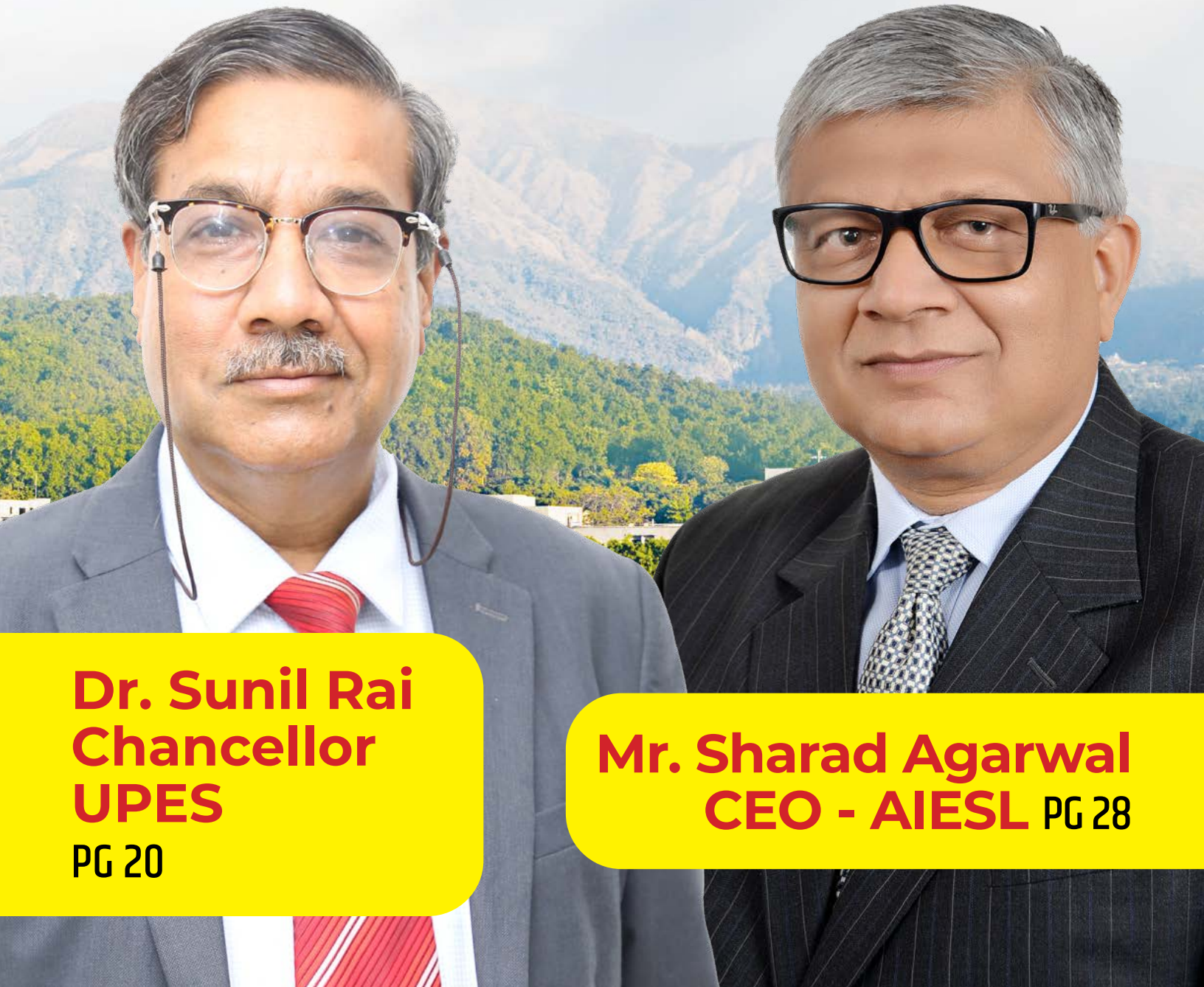
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**Dr. Sunil Rai**  
**Chancellor**  
**UPES**

PG 20

**Mr. Sharad Agarwal**  
**CEO - AIESL PG 28**

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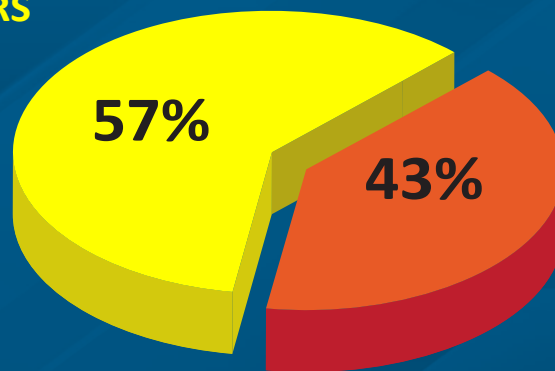
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**CONTACTS:-** BENGALURU: Sanjeev Rao, Project Director | M: +91 98452 93126 | E: sanjeev.rao@informa.com  
 NEW DELHI: Sanjay Khandelwal, Assistant Project Director | M: +91 98117 64515 | E: sanjay.khandelwal@informa.com  
 MUMBAI: Rajeev Jain, Sr Project Manager | M: +91 99877 90776 | E: rajeev.jain@informa.com

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## Joramco appoints new Vice President of Supply Chain



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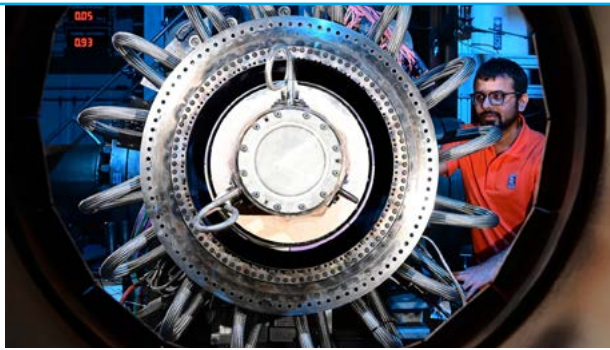
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# Aviation UPDATE

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Editor-in-Chief ♦ B. Kartikeya

## EDITORIAL

Associate Editor ♦ Rohith Reddy

Special Editor ♦ Naheda Imtiyaz

Correspondent ♦ B. Martin

CREATIVE HEAD ♦ Swati Sharma (Design Garage)

PHOTOGRAPHER ♦ Krishanth

## MARKETING

marketing@futureaviation.in

Manager, Marketing ♦ Rohith Reddy

## SUBSCRIPTION

Asst.Manager, Subscription ♦ Sony

## FINANCE & ADMINISTRATION

Sr.Manager ♦ Karunandhi

Asst.Manager ♦ Md. Wajid Ali

Editorial & Advertising Offices

## AVIATION UPDATE

Villa No :105, Nakshatra Society, Siddanthi, Shamshabad, Hyderabad, Telangana 501218

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Letter to editor Kartikeya@futureaviation.in

For Advertising details contact

Marketing@futureaviation.in

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**B. KARTIKEYA**

Hello Readers!

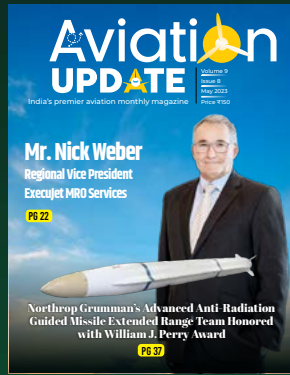
Aviation enthusiasts of all stripes, including professional pilots, aircraft engineers, amateur enthusiasts and aviation historians, are catered to by this publication. It offers a wide variety of information, ranging from in-depth studies on different types of aircraft and aviation technology to exciting insights into the most recent advancements in the field.

Discover a quick summary of the new codeshare relationship that British Airways and IndiGo have announced in our “Quick Updates” section. The Indian Football Team now has IndiGo as a partner internationally and an official airline. The All-India Football Federation and IndiGo, according to CEO Pieter Elbers, have the same goal of taking Indian football to new heights. Thus, they are excited to begin this adventure together. For further updates, check out the section on engineers and MRO.

The exclusive interview with Dr. Sunil Rai, chancellor of the University of Petroleum and Energy Studies, focuses on the importance of contact with the industry and firms that recruit and the university's actions in this area. He encourages and advises young brains desiring to begin a career in aerospace engineering. There are several potentials for invention and discovery in this subject, which is thrilling and constantly changing.

Don't forget to read the Business Aviation part of the magazine to learn about the upcoming availability of the Cessna Citation XLS+ and XLS Gen2 avionics upgrade to the Garmin G5000 integrated flight deck. This edition of Aviation Update's 10th Anniversary has all of this and more. We're glad to have you on board and wish you many successful landings.

*Kartikeya*



# Aviation UPDATE

# 10<sup>th</sup> ANNIVERSARY



## Begins..

Let's start celebrating with us through out our 10<sup>th</sup> anniversary year

Connect With us :  
 Advertisement & Editorial: +91 9444499221  
 kartikeya@futureaviation.in

## IndiGo commences operations between Delhi-Tashkent



IndiGo, India's preferred carrier, has announced the commencement of operations to Tashkent, Uzbekistan, the 31st international and 110th overall destination in the 6E network. Starting from September 22, 2023, this significant move into Central Asia with four weekly non-stop flights connecting Delhi and Tashkent reflects IndiGo's proactive approach to expanding its global network. These new flights will help bolster trade relations and offer our customers enhanced connectivity to a large number of destinations.

Mr. Vinay Malhotra, Head of Global Sales, IndiGo, said, "We are delighted to commence direct flights between Delhi and Tashkent, the vibrant metropolitan capital of Uzbekistan. This new connection brings India closer to Central Asia, opening a new gateway for travelers to explore the country's rich cultural landmarks and historical connections along the Silk Route. As we expand our international network, we're committed to bringing people closer to their preferred destinations while fostering cultural and commercial ties across new horizons. We remain dedicated to providing our customers affordable, on-time, courteous, and hassle-free travel experiences across our unmatched network."

## Star Air now connects Nagpur and Hyderabad to Ajmer (Kishangarh)

Star Air, India's leading regional airline, is thrilled to announce the expansion of its flight network with the introduction



of a new route connecting Nagpur and Hyderabad to Ajmer (Kishangarh). Starting from 30th September, Star Air will operate non-stop flights on its modern Embraer E175 aircraft, providing travelers with convenient and comfortable access to the enchanting city of Ajmer (Kishangarh). These new routes, part of 40 routes awarded to Star Air under the Govt. of India's RCS-UDAN scheme, will provide convenient and seamless travel options for passengers visiting the beautiful cities of Ajmer & Pushkar.

With the introduction of these new flights, Star Air aims to enhance connectivity and cater to the growing demand for travel to Ajmer Sharif and Pushkar temples. The airline recognizes the significance of these spiritual destinations and is committed to providing a comfortable and hassle-free travel experience for pilgrims and tourists alike. Star Air is also the first airline to offer a business class service between Nagpur-Kishangarh-Nagpur, Hyderabad-Kishangarh-Hyderabad and Hyderabad-Nagpur-Hyderabad. This would also be the first time an Embraer E175 lands in Kishangarh. The jet aircraft covers the distance between Hyderabad & Nagpur in 1 hour 15 minutes and Nagpur & Hyderabad in 1 hour 30 minutes.

## IndiGo and British Airways announce new codeshare partnership

IndiGo, India's leading airline, and international carrier, British Airways

have signed a codeshare agreement to further boost connections between India and the UK. Through this partnership – which sees British Airways add its code onto a couple of destinations across IndiGo's network – customers can enjoy improved connectivity between India and the United Kingdom for travel from October 12, 2023.

With this codeshare partnership with IndiGo, British Airways will now be able to add three additional routes to their existing network: · Amritsar



to London Heathrow via New Delhi · Kochi to London Heathrow via Mumbai · Ahmedabad to London Heathrow via Mumbai · Goa to London Heathrow via Mumbai · Thiruvananthapuram to London Heathrow via Mumbai (NEW) · Kolkata to London Heathrow via Mumbai · Rajkot to London Heathrow via Mumbai (NEW) · Vadodara to London Heathrow via Mumbai (NEW)

The agreement means that customers traveling, for example from Rajkot to London, or transiting through London Heathrow (or vice versa) will be able to connect to their destination on a single ticket. IndiGo operates an extensive domestic and regional network with a fleet of A320 aircraft. All British Airways customers traveling onwards with IndiGo will be able to enjoy a complimentary meal and the UK carrier's generous baggage allowance in economy via codeshare for flights to India – two checked bags up to 23 kilos per person.

Abhijit Dasgupta, Senior Vice President – Network Planning and Revenue Management, IndiGo, said, "We are excited to announce our codeshare agreement with British Airways. This

partnership expands the choices available to British Airways customers for journeys to/from London Heathrow, using IndiGo's extensive network in India. This step to provide seamless connectivity will not only support trade and commerce between the two countries but also offer convenient travel options to students and tourists. With burgeoning demand for international travel, we will continue to enhance international connectivity and remain committed to our promise of providing on-time, affordable, courteous, and hassle-free travel experiences to our customers."

Neil Chernoff, Director of Network and Alliances, British Airways, said, "British Airways has been flying to India since 1924, making it one of our longest-served and most valued destinations. Our partnership with IndiGo means that customers will be able to book their entire journey on one ticket, allowing seamless travel all the way from London to their final destination, offering more choice and flexibility for customers."

### **Air India Rolls Out 'Project Abhinandan' To Elevate Airport Experience for Guests**



Air India, India's leading global carrier, has rolled out 'Project Abhinandan' (an expression of greetings in Hindi), aimed at providing personalised and hassle-free on-ground experience to Air India guests at airports.

As part of the project, Air India has deployed specially trained Service

Assurance Officers at 16 major Indian airports, who will offer on-ground assistance across airport touchpoints to Air India guests who may require it – at check-in area or lounges, near the boarding gates, during transit, or at the arrival hall.

Air India's Service Assurance Officers are trained to sense passenger concerns at airports and will be placed at strategic touchpoints to proactively engage with guests, provide support, or troubleshoot any issues. They are also trained to address unforeseen issues such as missed flights, delayed baggage delivery and misconnections at airports, among others.

Rajesh Dogra, Chief Customer Experience & Ground Handling Officer, Air India, said, "Airport experiences can be daunting for many air travellers, despite how frequently one travels. 'Project Abhinandan' is our sincere effort to simplify the airport experience for our guests and make a meaningful difference to their overall travel experience, and more broadly, to make them feel at ease and welcomed when they fly with us."

"Flying is a wonderful experience, and we want our guests to enjoy it in the most seamless ways possible. We are constantly evaluating new ways to enhance that experience in our effort to transform Air India into a truly world-class airline. 'Project Abhinandan' service is a step in that direction," Dogra said.

### **Vistara announces direct flights between Mumbai and Frankfurt**

Vistara, India's finest full-service carrier and a joint venture of Tata group and Singapore Airlines, announced direct, 6x weekly flights between Mumbai and Frankfurt, starting from 15 November 2023. This new route is in addition to Vistara's 6x weekly service between Delhi and Frankfurt which has been



getting good response since its launch in February 2021. With the addition of this new long-haul route, Vistara further enhances connectivity between Europe and India as it continues to grow its international network. The airline will operate its Boeing 787-9 Dreamliner featuring a three-class cabin configuration, offering the choice of travelling in Business, Premium Economy, and Economy cabins. Bookings for the flights are being progressively opened on all channels, including Vistara's website, mobile app, and through travel agents.

Vistara's operations in Mumbai has witnessed remarkable expansion in recent times, especially as a gateway to the airline's international network. Vistara now connects Mumbai to a total of 12 international destinations, including Abu Dhabi, Bangkok, Colombo, Dammam, Dhaka, Dubai, Jeddah, London Heathrow, Male, Mauritius, Muscat and Singapore. In the last 12 months, the airline has added many new domestic and international connections from Mumbai leading to an increase of 42% in the number of departures, and nearly doubled its employee-strength in the station.

Mr. Vinod Kannan, Chief Executive Officer, Vistara, said, "We are delighted to expand our international network with the launch of this new service between Mumbai and Frankfurt. Our long-haul routes, connecting Delhi with London Heathrow, Paris and Frankfurt have been very popular amongst our customers which gave us the confidence to offer similar connections from Mumbai as well. This will be our second long-haul route from Mumbai, in addition to 5x weekly flights to London Heathrow, and we hope that

our customers will appreciate having the option of flying with India's best airline on this sector."

"Over the past couple of years, we have launched several new international routes from Mumbai, especially to the Middle East. This aligns perfectly with our strategy to position Mumbai as a vital hub for international travel," he added.

## IndiGo becomes global partner and official airline for the Indian Football Team



IndiGo, India's preferred carrier, has embarked on an exciting partnership with the All-India Football Federation (AIFF). In a collective endeavor to unite fans and nurture the sport's growth, IndiGo now stands as the global partner and official airline for the Indian Football Team. Football is among the three most popular sports in India, both in terms of player participation and TV viewership, making this partnership between IndiGo and the All-India Football Federation (AIFF) even more significant.

Pieter Elbers, CEO, IndiGo, said, "We are thrilled to embark on this journey with the All-India Football Federation, as both organizations share a common vision of advancing Indian football to new heights. This marks the start of

an official partnership for AIFF, while for IndiGo, it represents our inaugural foray into the world of sports. Together, we are committed to a long-term collaboration that will not only elevate the sport but also touch the lives of fans across the nation. We aim to provide the Indian Football Team with IndiGo's well-established strengths: on-time performance, hassle-free service at affordable fares across our unparalleled network both domestically and internationally."

Kalyan Chaubey, President, All India Football Federation, said, "It is indeed a pleasure for the All-India Football Federation to partner with IndiGo. During my travels with IndiGo, I was impressed with the service and professionalism of the airline. Being the country's largest airline, we consider this as IndiGo's first sports partnership. We are really honored and happy. I often say that India, with a population of 1.4 billion, is the fifth largest economy in the world, and people say it's a cricket nation, but I often say it's a cricket watching nation and a football playing nation. It's a mass sport, as every kid, you will find, is playing football. With this young population and this growing economy, we have partnered with IndiGo who can show leadership in the Indian airline market as well as in sports, where leaders from both organisations have also come up with a similar vision. I would request IndiGo to support us in every possible way and take this partnership and football forward together."

Dr. Shaji Prabhakaran, Secretary General, All India Football Federation, said, "It's a historic day for Indian football. The airline IndiGo is flying high, and I'm sure with this partnership, we will only fly high and we wish you will always be the market leader. We believe it's a great occasion that has never been seen in Indian football history. We never had a collaboration with any airline; that is truly historic. I'm sure that this partnership will take Indian football to greater heights and

we will work together to take football to a level whereby the world will look at us as we are flying very high with our collaboration. We will be there - be blue, and the Blue Tigers will take us to the skies and paint blue across and we will make India proud with this partnership. The vision is very clear: we want to be at the incredible state of sport in India, get the attention of the world, and be the biggest talent hub in the world. Maybe one day, we will be exporting in big numbers, and we will use your airline to export those talents as we fly high."

## Maldivian modernises regional fleet with further ATR 42-600



The national airline of the Maldives Maldivian, and the world number one regional aircraft manufacturer ATR, have signed a firm order for two ATR 42-600. These highly-efficient new aircraft will join the airline existing regional fleet, including two ATR 72-600 and one ATR 42-600, to replace older generation turboprops.

With these modern aircraft, powered by extra efficient PW127XT engines and featuring a spacious and appealing cabin, Maldivian will offer further reliable and affordable connectivity to the archipelago's communities and businesses, contributing to the Maldives' economic dynamism while lowering emissions.

Mohamed Mihad, Managing Director of Maldivian, stated: "We introduced our first two ATR aircraft into our fleet in January 2023, and our passengers



already praise the comfort and modernity of their cabin, as well as the reliability of the services we are providing. As the benchmark in regional aviation, both in terms of financial efficiency and CO2 emissions, the ATR -600 series represents a valuable asset for us to achieve responsible growth while providing quick access to essential services and preserving destinations for the archipelago's residents and tourists."

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

**Vietnam Airlines Selects 50 Boeing 737 MAX Airplanes to Grow its Fleet**



Boeing and Vietnam Airlines announced the carrier has selected the 737 MAX family to expand its single-aisle fleet, with a commitment to order 50 737-8 airplanes. With enhanced fuel efficiency and environmental performance, the 737 MAX will provide best-in-class flexibility for Vietnam's growing

aviation market. The commitment was announced during a signing ceremony with President Joe Biden, Secretary of State Antony Blinken, White House officials and Vietnamese government leaders on Monday, Sept. 11.

U.S. and Vietnam officials said the commitment will bolster jobs in both countries and strengthen the bilateral economic partnership. Building on Boeing's long history of collaboration with Vietnam's civil aviation industry, the carrier's 737 MAX fleet will support the country's goal of becoming a leading aviation hub.

"In line with Vietnam Airlines' 2025-2030 fleet strategy and a vision to 2035, aircraft investment is a crucial project that underpins positive recovery momentum and prosperous outlook for the airline, said Dang Ngoc Hoa, Chairman of the Board of Directors of Vietnam Airlines. "The new narrow-body fleet will allow us to foster our overall development and extend our high-quality service on Vietnam Airlines' domestic and Asian routes, as well as modernize our fuel-efficient fleet."

"Southeast Asia is one of the world's fastest growing aviation markets, and the 737 MAX is the perfect airplane for Vietnam Airlines to efficiently meet that regional demand," said Brad McMullen, Boeing senior vice president of Commercial Sales and Marketing. "We value our historic partnership with Vietnam Airlines, dating back to 1995 when the airline first leased 767s."

**IndiGo brings back direct connectivity between Hyderabad and Male**

IndiGo, India's preferred airline, is resuming direct flights between Hyderabad and Male, from October 31, 2023. The introduction of these new nonstop flights will help boost tourist traffic between India and The Maldives,



while also providing travelers with increased convenience.

The Maldives is one of the most popular destinations for Indians, and traffic from India to the archipelago has grown considerably. India has been the biggest contributor to tourism in the Maldives in recent years, and these new flights will help travelers from India with additional options.

Mr. Vinay Malhotra, Head of Global Sales, IndiGo said, "We are thrilled to announce the recommencement of our non-stop flights connecting Hyderabad and Male, from October 31, 2023. The introduction of these flights will not only improve accessibility but also offer travelers added flexibility and convenience. The Maldives has experienced a recent surge in travel, particularly in anticipation of upcoming holidays and long weekends. Furthermore, as the wedding season approaches, the Maldives stands out as an ideal destination, offering luxurious accommodations and romantic getaways for an unforgettable travel experience. We will continue to enhance international connectivity and remain committed to our promise of providing on-time, affordable, courteous, and hassle-free travel experiences to our customers across our wide network."

**Boeing, Aviation Capital Group Finalize Order for 13 737 MAX Jets**

Boeing and Aviation Capital Group LLC (ACG) announced the airplane lessor has finalized an order for 13 737 MAX jets, increasing the lessor's order book to 47 737 MAXs. The new, incremental order



includes seven 737-8 and six 737-10 jets as ACC grows its single-aisle options to meet robust customer demand for the fuel-efficient 737 MAX airplane family. “We are pleased to expand ACC’s commitment to the 737 MAX program. This additional order will allow ACC to offer highly fuel efficient and versatile aircraft to our airline customers worldwide,” said Steven Udvar-Hazy, senior vice president and chief of Aircraft Operations at ACC. The 737 MAX family offers carriers enhanced efficiency and route flexibility for short- and medium-haul air travel, making it a valuable asset for airplane lessors such as ACC. Lessors have ordered more than 1,300 737 MAX jets. The 737-8 can carry up to 210 passengers based on configuration with a range of 3,500 nautical miles, while the 737-10, the largest 737 MAX model, seats up to 230 passengers with a range of 3,100 nautical miles. Both variants reduce fuel use and carbon emissions by 20% compared to the airplanes they replace. “ACC’s growing and diverse 737 MAX portfolio allows its customers to operate a more sustainable, efficient fleet,” said Christy Reese, Boeing vice president of Global Leasing Commercial Sales & Marketing, Boeing Commercial Airplanes. “We look forward to helping ACC deliver the most fuel-efficient airplanes in the industry to its airline partners.”

**Vistara Announces Daily Non-Stop Flights From Delhi to Hong Kong**

Vistara, India’s finest full-service carrier and a joint venture of Tata group

and Singapore Airlines announced daily non-stop flights between Delhi and Hong Kong, starting 29 October 2023. The airline will operate its A321neo aircraft featuring a three-class configuration on this route. Bookings for the flights are being progressively opened on all channels, including Vistara’s website, mobile app, and through travel agents.



Mr. Vinod Kannan, Chief Executive Officer, Vistara, said, “We are delighted to add Hong Kong to our fast-growing global network. Hong Kong is one of the world’s most premier financial and commercial hubs that continues to draw significant corporate traffic from India. It has also been a very popular destination for Indian tourists. With the addition of Hong Kong, we are now able to offer our customers direct connectivity to and from three of the world’s top financial centres, the others being London and Singapore.”

**Turkish Airlines places order for ten additional Airbus A350-900**

Turkish Airlines, has announced a new order for 10 additional A350-900 aircraft, taking its total for the type to 40. This latest agreement is in addition to one announced in August for four A350-900s. Turkish Airlines already operates a fleet of 14 A350-900s. Christian Scherer, Airbus Chief Commercial Officer and Head of Airbus International, said, “We are delighted that Turkish Airlines has decided to further enlarge its fleet with the purchase of 10 more A350-900 aircraft. With greater range capability,



passenger capacity and comfort, the A350 is the perfect platform to connect Istanbul to the world. This repeat order demonstrates the confidence for our unique new generation aircraft that offers airlines unbeatable economics and efficiency. We are proud to keep expanding our long-lasting partnership with Turkish Airlines and Türkiye’s aviation sector overall.”

**ATR aims to have fleet of 25+ ATR 72-600 in Korea**



ATR plans to further contribute to Korea’s domestic and short-haul international air transportation market, with the aim of having an in-country fleet of 25-30 highly-efficient ATR 72 aircraft within the next seven years. ATR provided its forecast during a media briefing on the first day of the inaugural Gyeongbuk Aerospace, Defence and Logistics Exhibition (GADLEX) being held in Gumi city (6-8 September) in the

eastern province of Gyeongsangbuk-do. Jean-Pierre Clercin, ATR's Head of Commercial for Asia Pacific says: "We are thrilled to see the Gyeongsangbuk-do provincial government promoting domestic regional aviation by hosting the GADLEX aviation show. Korea has many under-utilised domestic airports, and scheduled domestic flights are mainly north-south. ATR sees opportunity to develop east-west routes, linking communities living along the east coast to places in Korea's western part, and the ATR is the ideal platform to create these links, in terms of considering the passenger volume, the geography and the distance. Besides, our 78-seat ATR 72 aircraft can take-off and land from a 1,200m runway in dry and wet conditions as per Korean rules, such as the one being developed on Ulleungdo Island. Our aircraft can therefore contribute to offer more responsible, affordable and convenient travel options, remaining profitable while serving the smallest communities, which also makes it an inclusive & resilient proposition."

Burning 45% less fuel and emitting 45% less CO2 than a comparable size jet aircraft, ATR 72-600 turboprops also have an external noise footprint that is three times lower, making them the best-in-class regional aircraft.

"We have seen operators try and fail to operate regional jets on domestic routes, and particularly on short distances, because these jets have higher operating costs, due mainly to higher fuel burn and maintenance costs," says Clercin. "There are instances where regional jets operators have later replaced their aircraft with ATR 72s, because our aircraft have unbeatable economics on routes less than 300NM due to the 45% lower fuel burn. Fuel accounts for 40% of an airline's total cost base, so reducing fuel burn has a hugely positive impact on the airline's profitability. This contributes to making airlines more resilient in an ever more volatile market environment" states Clercin.

## Air Canada to fly every model in 787 Dreamliner family, orders 18 Boeing 787-10s



Boeing and Air Canada announced the carrier is selecting the 787 Dreamliner to further modernize and grow its fleet with an order for 18 787-10 widebody jets, with the option to purchase 12 more. The flag carrier of the country, Air Canada will deploy the new fuel-efficient airplanes as part of its broader strategy to reduce carbon emissions while expanding its global route network.

"Air Canada has made investing in the passenger experience a core priority. Our experience shows customers greatly enjoy flying on the Dreamliner, so we are pleased to offer them a larger version of this popular aircraft, which will premiere a new, state-of-the-art interior cabin design. As importantly, the 787 is highly fuel efficient and will generate operational savings as well as support our sustainability goals of reducing emissions," said Michael Rousseau, president and CEO of Air Canada.

Reducing fuel use and improving efficiency by up to 25% compared to previous generation jets, the 787 helps advance Air Canada's ambitious environment goals over the next several decades. The carrier is positioned to optimize its fleet as it adds international routes in new and existing markets, further benefiting from the Dreamliner family's route flexibility and operating economics.

"With the 787 Dreamliner family, Air Canada will soon operate one of the most modern, efficient widebody fleets in the world," said Stan Deal, president and CEO of Boeing Commercial Airplanes. "The 787-10 will provide Air Canada with greater flexibility and commonality across its expansive network, connecting Canadians to destinations around the world."

## Cathay Group orders 32 A320neo Family aircraft



Hong Kong's Cathay Group has announced the purchase of an additional 32 Airbus A320neo Family aircraft as it continues to invest in expanding and modernising its fleet. The agreement doubles the Cathay Group's total orders for the A320neo Family to 64, of which 13 have already been delivered. The 32 additional aircraft will comprise both the A321neo and A320neo which will join the fleets of Cathay Pacific and HK Express. They will principally serve destinations in the Chinese Mainland and elsewhere in Asia.

Airbus Chief Commercial Officer and Head of International, Christian Scherer said: "Cathay is one of the world's leading airline Groups and we are proud to be part of its recovery and growth plan."

"Operating out of the Cathay Group's base at the heart of Asia, the A320neo family will enable it to expand its services across the region with a most efficient single aisle fleet and a positive passenger comfort differentiation. With a significant reduction in fuel consumption, the aircraft will also bring an immediate contribution to the Cathay Group's sustainability goals."

### Luc Tytgat appointed Acting Executive Director of EASA

Luc Tytgat has been appointed Acting Executive Director of the European Union Aviation Safety Agency (EASA) with effect from September 1, 2023. Tytgat replaces Patrick Ky, who is leaving the Agency at the expiry of his second 5-year mandate.

Tytgat joined EASA as Director of Strategy and Safety Management in January 2015 after having been responsible for air transport and space domains in the European Commission.

In his role at EASA he successfully increased the level of safety intelligence and developed a better and more agile regulatory framework. He set the strategic direction for key challenges faced by the sector, such as the need to reinforce the Agency's role in countering climate change and emerging safety risks such as cybersecurity, conflict zones and health. EASA's research and innovation as well as international cooperation activities also expanded significantly under his guidance.

"I am honoured to be entrusted with leading EASA through this transition period," Tytgat said. "My task in the coming months is to ensure that the Agency continues to deliver on its many projects and that our operational and reputational position remains intact, so that the new Executive Director can begin the new role at full speed."

Tytgat will be succeeded as Director of Strategy and Safety Management by Maria Rueda, formerly Managing Director at CAA International (CAAi), who will take up the role from October 1, 2023. Rueda joined the UK CAA's international cooperation and training arm in 2011 and rose to lead the organisation in 2015. Earlier, she held senior positions at Deloitte and had been Business Development Director at George Best Belfast City Airport.



### GA Telesis promotes Avinash Singh to VP Sales – Asia & Middle East



GA Telesis LLC ("GAT") announced that Avinash Singh has been promoted to Vice President of Sales – Asia & Middle East within the GA Telesis Engine Services Group ("GATES"). Singh's successful track record, deep understanding of the industry, and passion for growth, makes Avinash the ideal leader to spearhead GAT's growth initiatives in these important regions.

"Avinash's work ethic, team leadership,

and success in customer engagement have been a huge testament to what we look for in a leader within GATES. We are incredibly fortunate to have him as a key figure in our GA Telesis Ecosystem," said Russ Shelton, President of GA Telesis Engine Services.

Singh joined GA Telesis in December 2020 and quickly established himself as a key driver of sales and business development within the Asia & Middle East region. Singh demonstrates a keen understanding of market trends in commercial aviation, an ability to identify strategic opportunities, and a commitment to win key contracts and deliver the highest level of customer satisfaction. This strategic promotion comes in recognition of his strong leadership and outstanding contributions towards establishing GATES as a preferred partner for leading airlines in the region.

### Management changes within Lufthansa Technik's European network

At two locations of Lufthansa Technik subsidiaries in Europe there have been changes in management. Pat Foley has started as CEO & Managing Director of Lufthansa Technik Turbine Shannon, effective since 1 August. Maria Cilia took over the position as Head of Base Maintenance & CEO Lufthansa Technik Malta on 1 September.

Starting in 1992, Pat Foley held different positions at various locations of Lufthansa Technik. Among other positions, he was Chief Operations Officer at Lufthansa Technik Budapest. He also served as Chief Executive Officer at Lufthansa Technik Puerto Rico and assumed the role of Senior Director Business Development The Americas.

Maria Cilia has more than 16 years of experience in the aviation industry and has held various management positions at Lufthansa Technik. Her last position



was Head of Planning and Engineering at Lufthansa Technik Sofia.

Harald Gloy, Chief Operations Officer (COO) and Chief Human Resources Officer (CHRO) at Lufthansa Technik said: "I am very pleased that we were able to recruit Pat Foley and Maria Cilia for these key positions as CEOs for the two European subsidiaries of Lufthansa Technik. Each of them has been working in the aviation industry for many years and thus is highly experienced in this field. I wish both of them the very best in their new roles."

# Joramco appoints new Vice President of Supply Chain



Joramco, the Amman-based aircraft maintenance, repair, and overhaul (MRO) facility and engineering arm of Dubai Aerospace Enterprise (DAE), is pleased to announce Petra Lindemann's appointment as the new Vice President of Supply Chain.

With nearly two decades of experience, Petra is an aviation professional who brings a wealth of expertise to the table. Throughout her career, Petra has held leadership roles. At Swiss International Air Lines in Zurich, she took the role of the Director and Head of Procurement Services and interior. Prior to that, she was the Head of Strategic Logistics and Strategic Procurement Improvement and analysis at SR Technics in Zurich. She already gained experience in the Middle East during a secondment to ADAT in Abu Dhabi. At Joramco, Petra will be leading the Supply Chain department to meet the growth plans aimed at providing customers with a more connected experience.

“As Joramco continues to solidify its presence as a global leader in aviation maintenance and engineering, the appointment of Petra Lindemann further confirms the company's dedication to have a talented and professional senior management team. Under Petra's leadership, our team will continue to excel in delivering excellence and innovation. We are particularly excited about the strategic growth plans ahead and look forward to the valuable contributions from Petra and the entire team.

**Commenting on Lindemann's appointment, Chief Executive Officer, Fraser Currie**



## Airbus nominates new Commercial Aircraft business CEO



Airbus SE is announcing a leadership evolution in the Executive Committee, establishing a dedicated head at the helm of the Commercial Aircraft business.

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

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

This new organisational set-up will be established in the next months in collaboration with the Company's social partners, with a target go-live in project mode from 1 January 2024 onwards.

## Guillaume Halleux joins Swissport as Chief Commercial Officer

Guillaume Halleux joins Swissport as Chief Commercial Officer, effective 18 September. In close collaboration with Swissport's regional business leaders, he will maintain an open customer dialogue to build trust-based long-term partnerships with our airline clients and ensure expectations regarding operational excellence are met.

Effective 18 September 2023, Guillaume Halleux joins Swissport International AG from Qatar Airways as Chief Commercial Officer and member of the executive leadership team. He will execute Swissport's commercial agenda in developing existing and building new client relationships and drive the acquisition of new business.

"We are delighted to welcome Guillaume as our Chief Commercial Officer," says Warwick Brady, President &



CEO of Swissport International AG. "Our growth plan and the company's strategic outlook as the global market leader attract the best talent in the industry. Swissport's management team consists of a complementary group of executives with experience in ground handling and the airline industry. It allows us to understand what airlines want and meet

their expectations. This understanding is instrumental in fostering successful partnerships."

Guillaume Halleux brings over 25 years of experience and joins Swissport from Qatar Airways Cargo, where he served as Chief Officer Cargo at the airline's Doha head office. Prior to that, he served as the airline's Vice President Cargo Asia Pacific. He started his career with Air France in 1997, where he held several positions in Logistics and Business Development before joining the SkyTeam Cargo US joint venture between Air France, Delta Airlines, and Korean Air. Later he was appointed Regional Director for Hong Kong and South China at Air France-KLM. A French citizen, Guillaume holds a master's in business administration from ICN Business School in Nancy, France.

## flydocs appoints Jennifer Ioannidou as Chief Product Officer

flydocs, the leading digital records and asset management solution provider for the aviation industry is pleased to announce the appointment of Jennifer Ioannidou as Chief Product Officer. A passionate product professional, Jennifer joins flydocs with an exceptional background in developing targeted product portfolio strategies and creating user-friendly digital solutions for customers.

In the role of Chief Product Officer, and as a member of the flydocs Leadership team, Jennifer will own and oversee the product strategy, and drive business growth and solutions to strengthen customer satisfaction. She will also be responsible for collaboratively delivering an effective customer



experience journey to meet the growing needs of flydocs' global customers.

Commenting on the appointment, André Fischer, CEO, flydocs said; we're excited to welcome Jennifer at flydocs. She joins us at an exciting time as we advance with our product diversification and differentiation strategy. Jennifer's expertise in bringing new innovative products to the market and her focus on employing emerging technologies to improve customer experience will accelerate our business growth to meet our organisational target. With her diverse experience in product management, and strategic leadership, and with her remarkable background in developing successful product and service portfolios,

we're confident to build a robust product roadmap for flydocs to drive our industry's digital transformation.

Commenting on her appointment, Jennifer Ioannidou said; I am incredibly excited to join flydocs during this next pivotal stage of its journey and to further grow its industry-leading product offering. I am passionate about developing strategic solutions that solve user pain points and enable customers to achieve their commercial goals through digitisation. I am looking forward to working with the fantastic team here at flydocs to help drive the next phase of growth. Collaboration is key for a business to excel, and together, I know we will continue to deliver exceptional digital solutions for customers.

Jennifer is working on a Ph.D. in Music and Creative Industry Development and holds an MA in Business and Creativity from Newcastle University as well as numerous certifications in product and project management, coaching and leadership.

## Austrian Ministry of Defense selects the C-390 Millennium as its new military transport aircraft



The Austrian Ministry of Defense announced the decision to select the C-390 Millennium aircraft as its new tactical transport solution. Embraer is honored to be chosen to support this important Air Force in Europe.

Austria joins Brazil, Portugal, Hungary and the Netherlands as future operator of the C-390 Millennium multi-

mission platform, an aircraft that is rapidly redefining the standards of tactical transport in the world defense market.

Embraer is ready to support the Austrian Ministry of Defense and Air Force in order to meet the demanding requirements of their acquisition process and prepared to further strengthen the relationship with this nation.

## Northrop Grumman's B-21 Raider Continues Progression to Flight Test



The U.S. Air Force announced the B-21 Raider has commenced engine runs as part of its ground test program at Northrop Grumman's Palmdale, California, facility. Engine testing is an essential milestone for the program as the world's first sixth-generation aircraft continues on the path to flight test.

The B-21's first flight will remain a

data driven event that is monitored by Northrop Grumman and the United States Air Force.

Developed with the next generation of stealth technology, advanced networking capabilities and open systems architecture, the B-21 Raider will serve as the backbone of America's bomber fleet.

## DEPUTY CHIEF OF THE AIR STAFF FLIES THE HINDUSTAN TURBO TRAINER HTT-40



Air Marshal Ashutosh Dixit AVSM VM VSM, Deputy Chief of the Air Staff flew the Hindustan Turbo Trainer Aircraft - 40 (HTT-40) Basic Trainer Aircraft at Bengaluru. Manufactured by Hindustan Aeronautics Limited (HAL), the aircraft has been indigenously designed and developed by the Aircraft Research & Design Centre of HAL and is based on the training requirements of the Indian Armed Forces.

The HTT-40 is a fully aerobatic aircraft, powered by a four bladed turbo-prop engine. It is fitted with a state-of-the-art glass cockpit, modern avionics and latest safety features, including a zero-zero ejection seat. The trainer has a maximum speed of 450 kilometers per hour and a maximum service ceiling of six kilometers. The HTT-40 first flew on 31 May 2016 and obtained system level certification on 06 June 2022. Clearance by Centre for Military Airworthiness and Certification for the full aircraft is currently underway.

The IAF signed a contract with HAL for the supply of 70 aircraft, the induction of which will commence on 15 September 2025 and continue till 15 March 2030. The HTT-40 will enhance the quality of training of ab-initio pilots of the Indian Armed Forces. The procurement will also include a Full Mission Simulator for the aircraft which will supplement the aerial training, allowing pilots to practice different profiles on ground, prior to the sorties.

HTT-40 is yet another step towards achieving greater self-reliance in the defence and aviation sphere in line with the Government's vision of 'Atma Nirbhar Bharat'.

## Safran Develop the Landing Gear System for Bell's Tiltrotor, the US Army's FLRAA

Safran Landing Systems is onboard Bell's tiltrotor aircraft program, as part of the US Army's Future Long-Range Assault Aircraft (FLRAA) project. According to the contract, Safran Landing Systems will design and develop the fully integrated landing system. These shared efforts will establish solid foundations to meet all future requirements. The US Army announced selecting Bell at the end of 2022.

"We are very proud to officially announce today our participation in the program as members of the Team", said François Bastin, CEO of Safran Landing Systems. "Safran is honored to be part of this project to develop a system based on the requirements of the US Army. Safran Landing Systems has been a committed partner to this program since 2018 and we greatly appreciate Bell's trust in our ability to develop an innovative landing gear system that will enable the Future Long Range Assault Aircraft to perform critical missions."

Building on 80 years of expertise and an ongoing commitment to innovation, Safran Landing Systems has all the capabilities needed to support the increasing complexity and technological requirements of military aircraft.



## BAE and L&T Team Up to Bring BvS10 All-terrain Vehicle to India Under the "Make in India" Programme



BAE Systems and Larsen & Toubro Limited (L&T) have partnered to bring the world-leading all-terrain vehicle, the BvS10, to the Indian market. The two companies have signed a licensing and manufacturing agreement to offer the BvS10 for the Articulated All-Terrain Vehicle (AATV) for the Indian Armed Forces.

Under the agreement, L&T is the prime for the Indian market, with the support of BAE Systems Hägglunds, the Swedish manufacturer of the highly-successful BvS10 family of vehicles. BAE Systems and L&T have upgraded the BvS10 to meet the specific requirements of the Indian Armed Forces. This new variant will be known as the BvS10-Sindhu. The AATV programme aims to deliver vehicles from L&T's Armoured Systems Complex, along with integrated logistic support (ILS).

"Our BvS10 all-terrain vehicle will demonstrate the critical capabilities the Indian Army needs when it participates in the trials later this month. Unsurpassed mobility, flexibility and the ability to work in extreme climatic conditions are at the core of the BvS10 design," said Tommy Gustafsson-Rask, managing director of BAE Systems Hägglunds. "Our teaming with Larsen & Toubro gives us the opportunity to expand into the Indo-Pacific market."

Larsen & Toubro sees this opportunity as an impetus for L&T's Armoured Systems business to build on the aegis of a strong manufacturing and design base coupled with the experience of BAE Systems. "L&T and BAE Systems' tie-up synergizes our strengths to provide a solution to meet the expectations of the Indian Army," said Mr. Arun Ramchandani, Executive Vice President

& Head L&T Defence. "The BvS10-Sindhu is the ideal vehicle for the extremely challenging terrain and climatic conditions in which it is proposed to be deployed."

The BvS10 vehicle on display at DSEI in London this week features a Mobile Short Range Air Defense system (MSHORAD) configuration. This demonstrates the versatility of the vehicle, evolving into a modular fighting vehicle which can carry a broad array of payloads addressing almost any threat in the modern operating environment without impacting the under-armor volume.

The BvS10's articulated mobility, provides optimal maneuverability across varying terrains including snow, ice, rock, sand, mud, swamps, and steep mountain environments. The vehicle's amphibious features also allow it to swim in flooded areas or coastal waters. It can deliver personnel and supplies as well as mounted lethality to address any threat in the modern operating environment.

The modular design allows the BvS10 to be reconfigured for varying missions. It can be delivered in multiple variants that include transporting personnel, command and control, ambulance service, vehicle repair and recovery, logistics support, situational awareness, as well as vehicle mounted lethality and support weapons.

The vehicle is currently in service in Austria, France, the Netherlands, Sweden, Ukraine, and the United Kingdom. It is also on order for the German Army. BAE Systems' Beowulf, the unarmored variant of the BvS10, won the U.S. Army's competition for its Cold Weather All-Terrain Vehicle (CATV) program in August. The U.S. Army will receive 110 vehicles over a five-year period.



## BEL & IAI sign MoU to tap opportunities in Short Range Air Defence Systems domain



**B**harat Electronics Limited (BEL) and Israel Aerospace Industries (IAI), Israel's leading aerospace and defence company, have inked a MoU for co-operation in addressing India's requirements in the domain of Short Range Air Defence Systems.

The MoU was signed by Mr K V Suresh Kumar, Director (Marketing), BEL, and Mr Avi Elisha, VP and General Manager, Missile Systems Division, IAI, in the presence of Mr Bhanu Prakash Srivastava,

CMD, BEL, in Bengaluru yesterday.

The partnership marks yet another significant step towards cementing the synergy between the two companies which have a long history of association. BEL and IAI are engaged in several joint development / production / product support programmes for the Indian Defence forces. The MoU aims at leveraging IAI and BEL's capabilities, and is in sync with the 'Atmanirbhar Bharat' and 'Make in India' policies of the Government of India.

Mr Bhanu Prakash Srivastava, CMD, BEL, said: "BEL considers IAI, Israel, as a key strategic partner. This MoU is envisaged to boost the co-operation between the two companies in the field of Short Range Air Defence Systems. It will empower the Indian industry to make significant contributions towards equipping our forces with state-of-the-art Short Range Air Defence Systems."

Mr Boaz Levy, IAI's President and CEO, said: "BEL and IAI have a successful partnership in the field of Air Defence in India. Together, we are providing the Indian Armed Forces with high-end Air Defence capabilities that meet their high-end operational requirements on one hand and 'Make in India' requirements on the other. Hence, it is only natural that we expand this cooperation to the Short Range Air Defence domain."

## FIRST C-295 MW TRANSPORT AIRCRAFT FORMALLY INDUCTED INTO INDIAN AIR FORCE

**R**aksha Mantri Rajnath Singh has said that the induction of C-295 will bolster medium-lift tactical capability of the Indian Air Force. He said, the Defence and Aerospace sectors are the two important pillars for making India self-reliant in the coming years. Mr Singh formally inducted the first C-295 MW transport aircraft at the Indian Air Force airbase in Hindan, Ghaziabad, Uttar Pradesh. He said, this medium-lift tactical aircraft is capable of taking off and landing from unprepared landing grounds and it will replace the HS-748 Avro aircraft. Air Chief Marshal VR Choudhari and other dignitaries were also present during the induction ceremony.

India has formalised the acquisition of 56 Airbus C-295 aircraft to replace the Indian Air Force AVRO fleet. As per the contractual agreement, Airbus will deliver



the first 16 aircraft in fly-away condition from its final assembly line at Seville. Forty aircraft will be manufactured and assembled by Tata Advanced Systems in India as part of an industrial partnership between the two companies. All the C-295 aircraft will be handed over in transport configuration and equipped with an indigenous Electronic Warfare Suite. The Indian Air Force received the

first C-295 MW transport aircraft at Seville in Spain on the 13th of this month which was attended by Air Chief Marshal VR Choudhari. The C-295 is used for tactical transport of up to 71 troops or 50 paratroopers, and for conducting logistic operations to locations that are not accessible for heavier aircraft.

Earlier, Raksha Mantri inaugurated the two-day Bharat Drone Shakti-2023. More than 75 drone start-ups and companies are participating in the event. It is expected to attract around five thousand attendees, including representatives from central government, state departments, public and private industries, armed forces, paramilitary forces, and representatives from friendly countries. Bharat Drone Shakti will give a fillip to India's commitment to becoming a global drone hub by 2030.

## Lockheed Martin Conducts First Flight In U-2 Avionics Tech Refresh

Lockheed Martin Skunk Works® in partnership with the U.S. Air Force, completed the first flight of the U-2 Dragon Lady's Avionics Tech Refresh (ATR) program.

The successful first flight tested the new advanced capabilities aboard the U-2 as part of the ATR contract, including:

An updated avionics suite (communications, navigation, display, etc.) that modernizes the U-2's onboard systems to readily accept and use new technology.

A new mission computer designed to the U.S. Air Force's open mission systems (OMS) standard that enables the U-2 to integrate with systems across air, space, sea, land and cyber domains at disparate security levels.

New modern cockpit displays to make pilot tasks easier, while enhancing presentation of the data the aircraft collects



to enable faster, better-informed decisions.

During this mission the aircraft successfully performed a low-altitude functional check flight to integrate new avionics, cabling and software.

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

capabilities needed for the future Joint All-Domain Operations battlespace."

The ATR first flight marks a milestone in the U-2's modernization efforts and its path to be the first fully OMS-compliant fleet. Further testing will solidify a mature software baseline before mission systems are introduced to ensure both functionality and interoperability to meet operational needs.

The U-2 ATR contract was awarded by the U.S. Air Force in 2020 and valued at \$50 million.

## BOEING, RED 6 COMPLETE FIRST AUGMENTED REALITY TEST FLIGHT

Boeing and Red 6 have successfully integrated and flown augmented reality (AR) in a TA-4J tactical aircraft as a precursor to integrating and testing the system in a T-7 advanced trainer. Boeing and Red 6 announced an agreement last September to integrate Red 6's Advanced Tactical Augmented Reality System (ATARS) and Augmented Reality Command and Analytic Data Environment (ARCADE) into fighter aircraft.

"Boeing is the first company to team with Red 6 on this type of advanced training technology," said Donn Yates, executive director, Boeing Air Force Fighters and Trainers Business Development. "The successful series of ground tests and four flight sorties illustrate our collaborative ability to rapidly integrate, deliver and test new technology with the potential to change fighter pilot training for an



entire generation. Combining Boeing's platforms, capabilities and knowledge with new and emerging companies like Red 6

creates better products and services for the warfighter."

Using Red 6's patented technology, pilots will be able to see and interact with virtual aircraft, targets and threats on the ground and in the air, while also experiencing the cognitive loads of physically flying the airplane.

"We are very proud of our team's efforts to go from integration into the TA-4J to successfully flying the technology in less than a year," said Thomas "Guns" Bergeson, president, Red 6. "We remain focused on delivering a fully synthetic, outdoor training environment that will transform training for future fighter pilots. The combination of T-7 and ATARS will usher in a new paradigm in training, directly impacting readiness and lethality."

Boeing's Air Dominance organization continues to partner with startups across industry, seeking new and leading-edge systems such as ATARS. Testbed capabilities developed by Boeing and non-traditional industry partners reduces risk for future programs.

## HENSOLDT provides US Coast Guard with naval radars



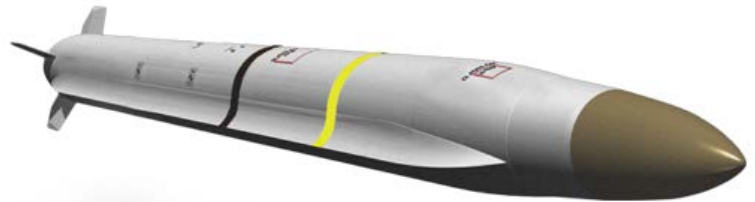
Sensor solutions provider HENSOLDT is equipping the US Coast Guard's "Legend" class National Security Cutter (NSC) with its proven TRS-3D multi-mode naval radar. The US Coast Guard awarded HENSOLDT a follow-on contract worth approximately 10 Mio. \$ to deliver a further radar in its latest 'Baseline D' version to be installed at the Coast Guard training center (TRACEN), Petaluma/CA. Up to now, HENSOLDT has delivered 12 radars to the US Coast Guard's NSC program.

"With more than 50 radars in service with Coast Guards and Navies worldwide, our TRS-3D naval radar has proven itself", HENSOLDT CEO Thomas Müller says. "We are making sure that our customers capitalize on continuous technology enhancements."

The TRS-3D Baseline D, with the US designation AN/SPS-75, utilizes gallium nitride (GaN) and solid-state emitter technology to deliver traditional TRS-3D robust performance while improving reliability and options for future development. HENSOLDT's TRS-3D radars have been aboard every NSC since the program's inception. TRS-3D is a three-dimensional, multi-mode naval radar for air and surface surveillance, target acquisition, self-defense, gunfire support and aircraft control. It automatically detects and tracks all types of air and sea targets, alleviating crew workload requirements.

HENSOLDT has decades of experience in radar and actively drives the further development of key technologies in this field. In addition to naval and ground-based air defence radars, the company's portfolio also includes fighter radars as well as ground surveillance and space radars.

## Northrop Grumman to Provide New Strike Missile Capability for Fifth-Generation Aircraft and Beyond



Northrop Grumman Corporation announced the U.S. Air Force has awarded the company an approximately \$705 million contract to deliver the Stand-in Attack Weapon (SiAW), an air-to-ground weapon that accelerates the pivot to a new generation of air power.

Northrop Grumman's SiAW leverages the company's weapons systems design, development and production expertise to deliver on the Air Force's digital engineering priorities and accelerate capability for the warfighter.

During the next 36 months, Northrop Grumman will further develop the weapon, conduct platform integration and complete the flight test program for rapid prototyping in preparation for rapid fielding. Work will be performed at the company's Northridge, California facility and its factory of the future for missile integration at Allegany Ballistics Laboratory in West Virginia.

Expert: Susan Bruce, vice president, advanced weapons, Northrop Grumman: "Northrop Grumman's SiAW delivers on the Air Force's desire for its first digital weapons acquisition and development program. With our expert digital engineering capabilities, this next-generation missile represents an adaptable, affordable way for the Department of Defense to buy and modernize weapons."

### DETAILS ON SIAW & PHASE 2 DEVELOPMENT

SiAW is an air-to-ground weapon that will provide strike capability to defeat rapidly relocatable targets as part of an enemy's anti-access/area denial environment. To adapt to ever-changing threats, the missile design features open architecture interfaces that will allow for rapid subsystem upgrades to field enhanced capabilities to the warfighter.

Phase 2 development is a continuation of the Air Force requirement for this first-of-its-kind Middle Tier Acquisition large weapon program focused on digital engineering, Weapon Open System Architecture and agility. The Air Force is targeting an initial operational capability by 2026. Phase 2 consists of two primary increments:

Phase 2.1 concludes with a guided vehicle flight test.

Phase 2.2 concludes with three additional flight tests and the delivery of SiAW leave-behind prototype missiles and test assets.

The development of SiAW is part of Northrop Grumman's broad offerings in advanced weapons, including armaments, components, missiles, electronics and interceptors to defeat and deter threats.



Aviation Update Editor Kartikeya in conversation with

**Dr. Sunil Rai - Chancellor  
UPES**



**Q** What can you tell us about your experience about the UPES?

**A** UPES is a place where individual growth and development are celebrated. Nestled in the picturesque foothills of the Himalayas, it offers a unique opportunity to savor life in the embrace of nature. My tenure as Chancellor has witnessed remarkable progress in UPES' standing in the National Institutional Ranking Framework (NIRF) and its overall reputation. I consider myself truly fortunate to be a part of the UPES family, which upholds a rich culture and a strong value system. Here, every individual has the chance to thrive and acquire knowledge. In sum, my time at UPES has been the most enriching and enjoyable phase of my life.

**Q** Tell us something about the admission process for Aerospace Engineering?

**A** The Aerospace Engineering program, a graduate offering from the School of Advanced Engineering, was initiated in 2006. Admission to UPES can be secured through two primary avenues. Candidates can opt for the UPES Engineering Aptitude Test (UPESSAT) examination, which is specifically designed for admission to our programs. Alternatively, individuals have the option to seek admission based on their JEE scores.

In addition to these pathways, we have recently introduced a unique feature, a "Design Your Own Degree" program, allowing students to tailor their specialization

across schools based on their individual interests and career aspirations. This flexible approach enhances the learning experience. Moreover, we offer a diverse range of programs, including undergraduate, postgraduate, and doctorate options, reflecting our commitment to providing comprehensive educational opportunities.

**Q** What kind of infrastructure can students expect at the University? Please elaborate?

**A** The University boasts a truly world-class infrastructure, designed to provide an enriching academic experience. Our state-of-the-art facilities encompass a wide spectrum of technical laboratories,



including specialized labs for Aerodynamics, Propulsion, Aeromodelling, CFD, Space Technology, and structural analysis, among others. Furthermore, we offer foundational labs such as Workshop Technology, Material Testing, Material Science, and Fluid Mechanics.

In addition to these advanced facilities, UPES is committed to nurturing the dreams of our students by providing research funding opportunities like “SHODH” to support their academic pursuits. Our Central Library is a treasure trove of knowledge, with a collection

exceeding 5.5 lakh learning resources, available both online and offline, ensuring that students have access to a wealth of information and research materials.

The campus is not only a hub for academics but also a place for leisure and recreation. We offer state-of-the-art sports facilities and numerous spaces for students to unwind and socialize. For the convenience of our students, we provide dedicated on-campus residential facilities equipped with all essential amenities. This comprehensive support system ensures that every

student has access to the necessary resources and a conducive environment for their educational journey.

**Q** There is a lot of stress that is being made regarding interaction with the industry as well as companies that recruit. What are the steps being taken by the University in this direction?

**A** Our university is dedicated to fostering a strong bridge between academia and industry, ensuring our students benefit from real-world exposure. We actively



facilitate interactions between industry leaders and our students on various occasions. Recently, during the National Space Convention 3.0, we had the privilege of hosting Dr. G. Satheesh Reddy, SA to RM, Ministry of Defence, Government of India, along with dignitaries from various organizations. Such interactions serve as inspirational platforms for our students.

Our Career Services team works tirelessly to bring top companies to campus, providing students with opportunities for internships and placements. We have an impressive track record, with a 100% placement rate for eligible students,

underscoring the strong relationships we maintain with various industries across different domains.

Additionally, we prioritize the professional development of our faculty through the “Abhigyat-Industry Immersion Program”, offering industry training to educators. This initiative equips our faculty with firsthand industry insights, which they can then share in the classroom.

This comprehensive approach ensures that our students receive not only a top-notch education but also real-world exposure and placement opportunities.

**Q Does the university help students with internships? If yes how?**

**A** Absolutely, the University is committed to facilitating internship opportunities for all our students. In their first year, we introduce a unique “social internship” program, allowing students to engage with various organizations dedicated to societal welfare. This experience equips them with valuable insights into everyday challenges and contributes to their personal growth.

As students’ progress into the third year of their B.Tech program, our dedicated team works tirelessly to arrange internships in

their respective domains. These internships typically span 2 to 3 months and are tailored to meet specific requirements. They offer a firsthand experience of the professional world, fostering a deeper understanding of industry dynamics and instilling positive leadership attributes. Our proactive approach to internships ensures that our students are well-prepared to navigate the real-world challenges of their chosen fields.

**Q** What is your message to youngsters who

**wish to choose Aerospace engineering as their career?**

**A** To the young minds aspiring to embark on a career in Aerospace Engineering, I offer words of encouragement and guidance. This field is an exhilarating and ever-evolving realm, teeming with opportunities for innovation and discovery. In the realm of Aerospace Engineering, you'll delve into space technology, avionics, defence technology, and their interconnected domains, all of which hold the promise of

shaping the present and future.

Choosing Aerospace Engineering is an enthralling journey that not only fulfils your own aspirations but also allows you to contribute to groundbreaking advancements that can reshape our world. If you're driven by passion, commitment, and a dedication to continuous learning, remember, the sky is not the limit; it's just the beginning of your boundless voyage through the aerospace frontier!





# ROLLS-ROYCE, EASYJET ACHIEVE INDUSTRY FIRST IN HYDROGEN COMBUSTION ENGINE RESEARCH

Rolls-Royce announces a further key milestone, a world industry first, has been achieved in its hydrogen research project. Both Rolls-Royce and its partner easyJet are committed to being at the forefront of the development of hydrogen combustion engine technology capable of powering a range of aircraft, including those in the narrow-body market segment, from the mid-2030s onwards.

Now, working with Loughborough University in the UK and the German Aerospace Centre Deutsches Zentrum für Luft-und Raumfahrt (DLR), Rolls-Royce has proven a critical engine technology that marks another significant step in the journey to enabling hydrogen as an aviation fuel. Tests on a full annular combustor of a Pearl 700 engine at DLR in Cologne running on 100% hydrogen have proven the fuel can be combusted at conditions that represent maximum take-off thrust.

Key to that achievement has been the successful design of advanced fuel spray nozzles to control the combustion process. This involved overcoming significant engineering challenges as hydrogen burns far hotter and more rapidly than kerosene. The new nozzles were able to control the flame position using a new system that progressively mixes air with the hydrogen to manage the fuel's reactivity. Rolls-Royce is pleased to confirm that combustor operability and emissions were both in line with expectations.

The individual nozzles were initially tested at intermediate pressure at Loughborough's recently upgraded test facilities and at DLR Cologne before the final full-pressure combustor tests took place at DLR Cologne. Last year, easyJet and Rolls-Royce also set a world first by successfully running a modern aero engine, an AE2100, on green hydrogen at Boscombe Down, UK. These recent tests mean the combustion element of the hydrogen programme is now well understood, while work continues on systems to deliver the fuel to the engine and integrate those systems with an engine.



This is an incredible achievement in a short space of time. Controlling the combustion process is one of the key technology challenges the industry faces in making hydrogen a real aviation fuel of the future. We have achieved that, and it makes us eager to keep moving forward. I want to thank easyJet, Loughborough University and DLR for their dedication and support to reach this milestone.

**Grazia Vittadini, Chief Technology  
Rolls-Royce**

Johan Lundgren, CEO of easyJet, said: "We believe hydrogen is the future of short-haul aviation and the success of this test and progress being made demonstrates that this is becoming ever closer. We remain optimistic that it will play a critical role in helping us achieve the ambitious goals we set out in our net zero roadmap."

Professor Dan Parsons, Pro Vice-Chancellor

for Research and Innovation, Loughborough University, said: "In conjunction with its partners, the National Centre for Combustion and Aerothermal Technology (NCCAT) at Loughborough is delighted to have supported the landmark testing and development of advanced aerospace fuel spray nozzles utilising hydrogen fuel. This is a major advance towards net zero aviation."

Markus Fischer, Divisional Board Member Aeronautics of DLR, said: "This is an outstanding success story and we are more than happy to have contributed our hydrogen testing capabilities. It was very exciting supporting this technology journey and seeing the burner technology mature in various rigs at our Institute of Propulsion Technology. This underlines again DLR's capabilities in complex applied research and the achievement, at such a high pace, was supported by our experience in real-scale testing of ground-based gas turbines."

The technologies tested at Loughborough and DLR will now be incorporated into the learning from the Boscombe Down tests as Rolls-Royce and easyJet prepare for the next stage of testing – a full gas hydrogen ground test on a Pearl engine. That will in turn lead to a full ground test on a Pearl engine using liquid hydrogen – both easyJet and Rolls-Royce have a shared ambition to then take the technology to flight.

# ROLLS-ROYCE PEARL 700 ENGINE RECEIVES FAA TYPE CERTIFICATION AND PREPARES FOR THE UPCOMING ENTRY INTO SERVICE

Rolls-Royce announces its Pearl® 700, the exclusive engine for the all-new Gulfstream Aerospace Corp.® business aircraft Gulfstream G700™ and Gulfstream G800™, has received official certification by the Federal Aviation Administration (FAA). The pioneering engine, which was developed at the Rolls-Royce Centre of Excellence for Business Aviation engines in Dahlewitz, Germany, was custom-designed to power two of Gulfstream's latest products, enabling them to fly ultra-long-range missions nearly as fast as the speed of sound. The engine received its type certification from the European Union's Aviation Safety Agency EASA in September 2022.

During the comprehensive indoor and outdoor test programme, the engine demonstrated exceptional performance operating at sea-level and altitude conditions on both conventional jet fuel and 100% Sustainable Aviation Fuel (SAF). It proved its ability to withstand bird-strike, cross-winds, ice, hail and water ingestion as well as passing the critical fan blade containment test, during which a fan blade is deliberately released at maximum speed.

Testing was conducted at various Rolls-Royce locations in Europe and North America, including Dahlewitz in Germany; Bristol in the UK; Manitoba and Montreal, Canada; the Rolls-Royce outdoor jet engine testing facility, located at NASA's John C Stennis Space Centre, Mississippi, USA; as well as the altitude test bed at AEDC (Arnold Engineering Development Center) in Tullahoma, Tennessee, USA.

Dr. Dirk Geisinger, Director – Business Aviation, Rolls-Royce, said: This latest certification by the FAA for our Pearl 700 engine illustrates once again Rolls-Royce's unique capabilities to design, test, build and certify highly efficient and reliable aircraft engines. This makes us really proud and is also a testament to the dedication of



our global team to support our customer Gulfstream and the upcoming entry into service of the G700 and G800. We have worked closely with the FAA, EASA and Gulfstream to achieve this certification and I would like to thank all of them for their continued support.”

The Pearl 700 combines the Advance2 engine core, the most efficient core available across the business aviation sector, with a brand-new low-pressure system, resulting in an eight per cent increase in take-off



We are excited about this latest advancement towards G700 and G800 certification. The G700 and G800 are introducing new standards for efficiency and performance in the business aviation industry thanks to the combination of Gulfstream aerodynamics and the Pearl 700's efficiencies. We are seeing great demand for the technology, cabin comfort and ultralong-range capabilities the G700 and G800 will provide our customers.

**Mark Burns, President, Gulfstream**



thrust at 18,250lbf compared to the BR725 engine. The engine offers a five per cent higher efficiency, while maintaining its class-leading low noise and emissions performance.

Designed for outstanding reliability, the Pearl 700 engine is supported by industry-leading Rolls-Royce CorporateCare® Enhanced, the most comprehensive service programme in business aviation. CorporateCare Enhanced offers substantial financial and operational benefits to customers, increasing asset value and liquidity, mitigating maintenance cost risk and protecting against the unforeseen costs of unscheduled events anywhere in the world. Increased aircraft availability, reduced management burden, full risk transfer, direct priority access to the Rolls-Royce services infrastructure and remote site assistance are further customer benefits.

## Cebu Pacific enters CFM56-5B Engine Maintenance Partnership with Lufthansa Technik

Under the new contract, Lufthansa Technik will provide Maintenance, Repair and Overhaul (MRO) Services for three of Cebu Pacific CFM56-5B engines alongside with Cyclean® Engine wash and Aircraft Transition Services (ATS) for two A320ceo.

Cebu Pacific Vice President of Engineering & Fleet Management, Shevantha Weerasekera commented: “Lufthansa Technik has given us the confidence that our aircraft will be well taken care by the world’s best engine repair service provider. With the robust expansion plan on increasing the leasing of the A320ceo and A320neo fleet size and international routes to more countries, we need a trust-worthy partner to achieve the milestones for success together. We look forward to being fully supported through this partnership.”

Konstantin Stathopoulos, Vice President Corporate Sales Northeast Asia at Lufthansa Technik said: “Cebu Pacific recognizes us as a strategic partner in their growth plan. We are committed to



providing exceptional support and are eager to meet their needs. Furthermore, we are actively exploring opportunities to expand our collaboration with Cebu Pacific by offering component support, digitalization and other customized cutting-edge solutions upon Cebu Pacific’s operational need.”

The collaboration between Cebu Pacific and Lufthansa Technik is a testament to the airline’s commitment to investing into world-class maintenance services and ensuring the highest level of safety and operational efficiency for its passengers.

## Saab and Boeing extend 787 Dreamliner agreement

The framework agreement is an extension of an existing contract signed with Boeing in 2004 for the 787 Dreamliner programme.

“With this contract extension we continue to be a proud partner to Boeing on the successful 787 programme, one of the world’s best-selling widebody aircraft. It strengthens our good and long relationship with Boeing and enhances the cooperation we have, both on commercial aerostructures and the T-7A trainer on the defence side,” says Lars Tossman, head of Saab’s business area Aeronautics.

Since the programme started, Saab has delivered in excess of 1,100 shipsets for the Boeing 787 Dreamliner programme.



Saab has a long experience in supplying major aerostructures for military as well as commercial aircraft programmes. Like many other major 787 structures, the doors will be mainly made of composite materials. A range of systems are built into the doors’ composite structures, providing Boeing with lightweight doors that are easy to install.

## Honeywell expands partnership with APACS on repairs and spare parts



At MRO Asia-Pacific 2023, Honeywell and Asia Pacific Aircraft Component Services (APACS), a subsidiary of SIA Engineering Company (SIAEC) and joint venture with SR Technics Switzerland, reaffirmed their long-term partnership with the announcement of additional Honeywell licences awarded to APACS. These licenses enable APACS to perform repair activities on Honeywell’s Air Data Inertial Reference Unit (ADIRU) and Pre-Cooler Control Valve (PCCV) products and to explore associated material supply opportunities.

The first license encompasses a ten-year programme, allowing APACS to perform repairs on Honeywell ADIRU products for Airbus aircraft. This complements the license granted to APACS last year for Honeywell ADIRU products for Boeing aircraft. The second license is a seven-year repair and material supply programme, which enables APACS to perform repair activities for Honeywell PCCV products utilised in Boeing 737 aircraft. Both of these programmes also enable both parties to explore sales opportunities for spare parts across various aircraft types.

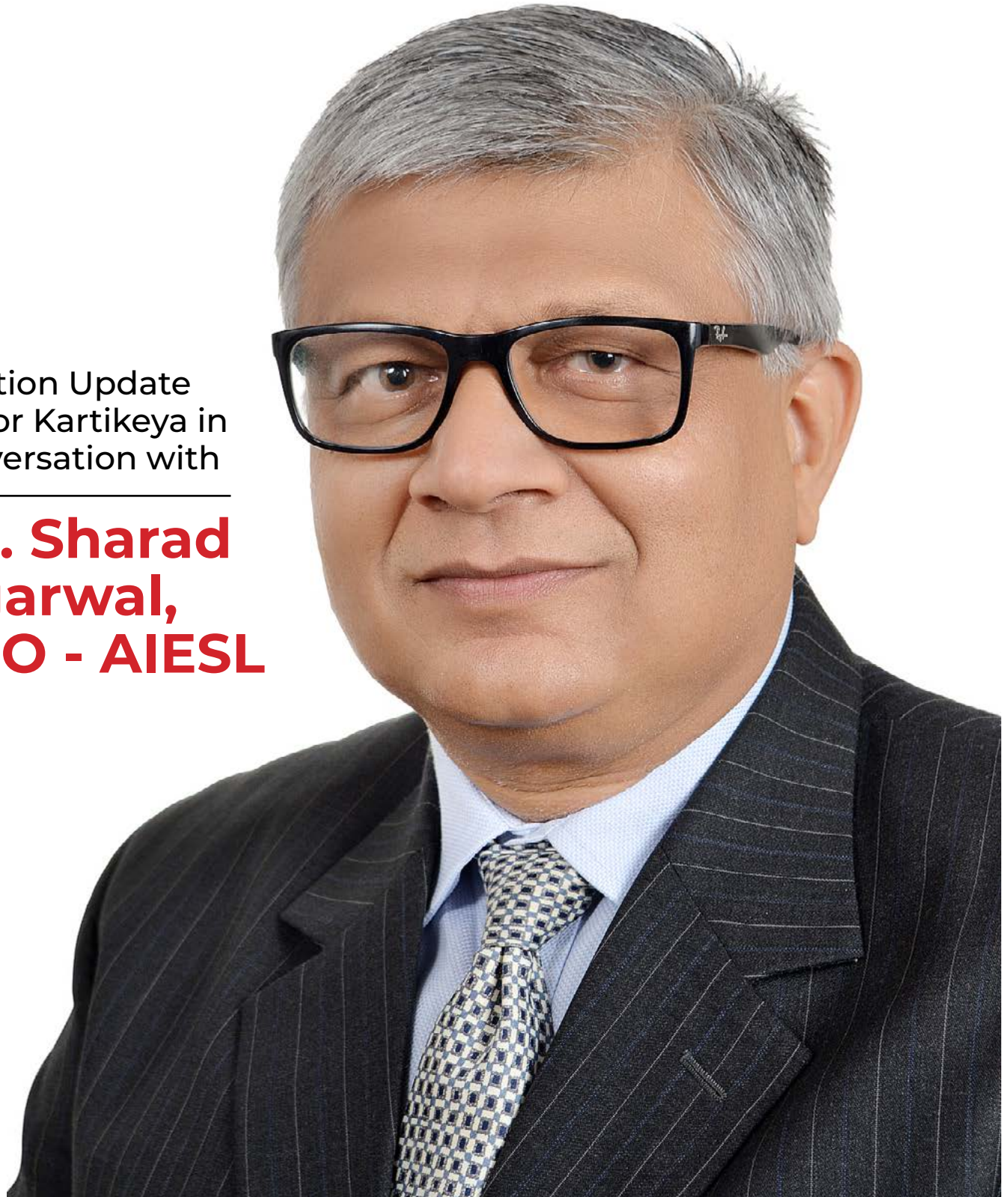
The ADIRU is a key component of the integrated Air Data Inertial Reference System (ADIRS), which supplies air data (airspeed, angle of attack and altitude) and inertial reference (position and attitude) information to the pilots’ electronic flight instrument system displays as well as other systems such as the engines, autopilot, aircraft flight control system and landing gear systems. The PCCV controls the amount of fan cooling air that flows through the pre-cooler, resulting in a controlled bleed air outlet temperature.

**AIESL – TAKING ALL CHALLENGES HEAD-ON!**

Aviation Update  
Editor Kartikeya in  
conversation with

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**Mr. Sharad  
Agarwal,  
CEO - AIESL**





**Q** Congratulations on the successful completion of C-Check on the Kuwait Airways aircraft at Nagpur facility. As the aircraft nears re-delivery phase, what can you tell your readers about rising standards of Indian MRO industry? Can we expect more foreign aircraft to touch-down at Nagpur facility?

**A** Indian MRO industry is getting matured and is inviting attention of international players. I do foresee coming up of many more international planes to NAG, and other internationally accredited MROs located at different locations in India.

**Q** Post the privatization of Air India, all eyes are now on privatization of AIESL. What are your views regarding this? What would you like to tell the potential investors?

**A** Post disinvestment of AI, AIESL has been managing its show. There are challenges running an independent organization, and we are accepting them, and are finding ways to deal with them. We are eagerly looking for disinvestment of AIESL.

AIESL is ONLY MRO in India, which has sizeable presence in all four segments, that is, Line Maintenance, Base Maintenance, Engine Overhaul and Component

Overhaul. It is perhaps the only MRO in world to have three engine test houses. AIESL has highly specialized skilled manpower, which needs to be leveraged to build a formidable MRO with right amount of investment.

**Q** Can you throw some light on growth trajectory of various AIESL facilities across India. Any plans for global expansion?

**A** AIESL needs to upgrade its facilities to continue servicing modern aircraft, engines and component. As most of the hangars are more than 30 years old, they need major renovations. AIESL is upgrading its capabilities in modern



hangars at TRV and NAG, and upgrading the old hangars with whatever money we can spare. As far as going for global expansion, AIESL is open to take up additional Line Stations. AIESL is also available for any international tie-ups, wherein our expertise is used by some investor to build a world-class MRO.

**Q** The word is abuzz that AIESL is currently recruiting more staff to meet the rising demand of maintenance operations. Can you tell us a bit more about the recruitment process. How many AME's technicians have you employed so far and what

**is the total recruitment figure you are looking at?**

**A** AIESL basically sells man-hours, and hence, AIESL needs to enhance its manpower, to sell more man-hours. At this moment. We are looking to fill all the approved vacancies, and also to replace retiring staff. We needed at least one thousand technicians, out of which, 300-odd have already joined. We are strictly following a transparent process, where in all vacancies are advertised on AIESL website and newspapers, and all available candidates have equal chance to prove their merit for selection.

Similarly, we are looking

forward to hiring at least 150 fresh AMEs from open market. We have also upgraded another 150 internal technicians to Trainee AME, and we are qualifying them to acquire initial licenses.

**Q** What can you tell our readers about the global impending problem of shortage of skilled labor with regards to MROs. As one of the leading MROs in India what steps is AIESL taking to address this issue?

**A** India has 50-odd Basic 147 schools, who are churning out at least 5000 odd technicians every year. Many of these students have cleared

DGCA modules and can be ready to be AME in 2-3 years. So, there is no dearth of young talent for Aircraft Maintenance in India.

When it comes to Engine or component overhaul, there is an issue. The person has to be task trained for at least 2 years, in a similar environment, before doing independent tasks. Hence, only existing shops can create more technicians and Engineers. While AIESL still has such facilities available, which can be used to build higher capacity, they may die down soon if not harvested quickly. So, there definitely is a

challenge.

**Q** What advice would you give today's young AMEs planning to pursue a career in aircraft maintenance?

**A** This is a field which requires discipline and single-minded dedication to succeed. The initial success is slow, but then one gets rewarded for the dedication eventually. So, one needs to be patient and continue walking. The road is usually long, but it pays eventually.

Another word of caution: anyone looking for quick

short-term success may keep away from this field.

**Q** Is the Indian MRO industry prepared for the huge influx of aircraft from Air India and IndiGo?

**A** As I just mentioned, there is no dearth of manpower in India. The current infrastructure is enough to take care of all immediate needs. The main challenge would be 6-8 years from now, when the newly acquired aircraft would be due for 6-year check. But then, there is enough time to prepare for them, and hence, there is no major cause for concern.



# Airbus unveils PioneerLab as its new twin-engine flying laboratory

During the German National Aviation Conference in Hamburg, Airbus Helicopters unveiled the PioneerLab, its new twin-engine technology demonstrator based on the H145 platform. It complements Airbus' range of FlightLabs and focuses on testing technologies that reduce helicopter emissions, increase autonomy and integrate bio-based materials.

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

The PioneerLab aims to demonstrate a fuel reduction of up to 30% compared to a conventional H145, thanks to a hybrid electric propulsion system and



aerodynamic improvements. Aboard the demonstrator, Airbus Helicopters will also flight-test structural components made from bio-based and recycled materials, which aim to reduce the environmental footprint across the entire aircraft life cycle. The company intends to produce the new parts using processes that reduce material and energy consumption and improve recyclability. Further research activities will include the integration of the latest digital

technologies into the aircraft's flight control system and associated sensors to increase autonomy and safety during critical flight phases such as take-off and landing.

PioneerLab is partially co-funded by the BMWK, the Federal German Ministry for Economic Affairs and Climate Actions through its national research program LuFo. Airbus Helicopters' FlightLabs provide agile and efficient test beds to quickly test technologies. They are part of the company's strategy to bring incremental innovation to improve its current products and as well as to mature technology for future platforms.

The PioneerLab's flight campaign has already begun at the manufacturer's largest German site in Donauwörth, with a rotor strike alerting system being the first techno-brick tested on board the demonstrator. The next phase will be to test an automated take-off and landing system.

## Gogo AVANCE L5 with 5G Provisions Now Offered by Dassault Falcon Jet

Gogo Business Aviation's AVANCE L5 system with full Gogo 5G provisioning is now available to Dassault Falcon Jet Service Center customers for popular models of its Falcon business jets.

Dassault designs, manufactures, and supports more than 2,000 Falcons in service of which more than 500 are harnessing the power of AVANCE L5 which provides an easy upgrade path to new technologies like Gogo 5G.

"Gogo 5G was designed with our customers in mind to deliver high throughput with low latency, addressing the increased demand for data-heavy services and applications," said Dave



Salvador, Gogo's vice president of aftermarket sales. "Dassault's investment in Gogo 5G provisions and STC development is a critical component in bringing this game-changing network technology to the market."

Customers who choose to upgrade to AVANCE L5 now will experience an immediate performance boost and will be provisioned for Gogo 5G when

it launches. During 5G provisioning, aircraft will be installed with a Gogo AVANCE L5 system and two belly-mounted multiband (MB13) antennas. The system will operate on the Gogo Biz 4G network until the AVANCE LX5 single box LRU – fully integrated with Gogo 5G connectivity – is available for installation in mid-year 2024.

Dassault will secure full Gogo 5G and AVANCE LX5 Supplemental Type Certifications (STCs) once the 5G service is available. Gogo is offering significant savings up to \$50,000 for customers looking to upgrade or install AVANCE L5 now in preparation for AVANCE LX5 and Gogo 5G availability.



## Honeywell Launches Device That Limits Effects Of Cellular Interference on Aircraft



Honeywell has launched a new product that can limit the effects of cellular interference on certain satellite communications (satcom) systems for aircraft communications. Honeywell's Type J DLNA (Diple9xer/Low Noise Amplifier), which received Technical Standard Orders approval, was specifically designed as an upgrade for customers operating on Inmarsat's L-band network. Honeywell's Type J DLNA will prevent interference from Ancillary Terrestrial Component networks, which are under deployment in the continental United States as well as certain global LTE and 5G cellular networks operating in frequency bands adjacent to Inmarsat's L-band network.

By upgrading to the Type J DLNA, aircraft operators using these satcom systems in the proximity of Ancillary Terrestrial Component networks in the continental United States and other globally deployed LTE and 5G ground stations will prevent service disruptions from cellular interference that can result in costly flight delays.

"There has been growing concern globally that certain 5G services could interfere with some aircraft satcom systems, and the Type J DLNA can limit those effects," said Steve Hadden, vice president and general manager, services and connectivity, Honeywell Aerospace. "With the upgrade, airlines and aircraft operators will continue to have access to Future Air Navigation System routes, which allow airplanes to fly at their optimum altitudes and burn less fuel. That creates a significant reduction in flight durations and fuel costs while improving overall flight safety."

The Type J DLNA is a single line-replaceable unit upgrade to existing L-band satcom systems operating on Inmarsat's L-band network. It allows continued operation of an airline's or operator's mission-critical satcom networks and allows customers to replace their existing DLANAs without requiring changes to aircraft wiring, connector interfaces or mounting provisions and without replacing their existing satcom terminals and antennas.

The upgrade is available to all operators using Class 6 or 7 satcom systems in commercial, defense, business and general aviation and ATR segments in both retrofit and line-fit scenarios. The Type J DLNA is fully compliant with the Type J DLNA specifications in ARINC Characteristic 781-8 and RTCA DO-262F.

## Cessna Citation XLS+ and XLS Gen2 avionics upgrade to Garmin G5000 integrated flight deck will soon be available at Textron Aviation Service Centers



Textron Aviation announced that the Garmin G5000 integrated flight deck will soon be available for the Cessna Citation XLS+ and XLS Gen2 and available for installation at Textron Aviation Service Centers, following supplemental type certification approval by the FAA anticipated in the first half of 2024. The G5000 avionics upgrade modernizes the cockpit and addresses the evolution of FAA airspace, while also offering a lower cost of operation.

Beechcraft, Cessna and Hawker customers receive factory-direct support, maintenance and modifications by Textron Aviation Inc through its global network of service and part centers, mobile service units and 24/7 1CALL AOG support.

"Garmin's G5000 integrated flight deck is already a popular modification for Cessna Citation Excel and XLS customers because it offers unmatched situational awareness, lower cost of operation and an improved in-flight experience," said Brian Rohloff, senior vice president of Customer Support. "We look forward to expanding this upgrade option to additional Citation operators as we continue to design and deliver the best customer experience and support our customers through the entire life cycle of their aircraft."

Garmin's G5000 avionics suite is designed to provide pilots with an intuitive and modern flight deck, including three landscape-oriented displays with split-screen capability, intuitive touchscreen controllers, and geo-referenced Garmin SafeTaxi® airport diagrams. The SafeTaxi® database provides operators with better situational awareness while taxiing at airports within the database by displaying hangars, terminals, towers, taxiways and other signs.

The G5000 upgrade installation on the Citation XLS+ and XLS Gen2 includes a fully digital Automatic Flight Control System (AFCS), offering precise performance throughout the aircraft's flight envelope.

The system also includes Emergency Descent Mode (EDM) as a standard feature. In the event an aircraft loses cabin pressurization, EDM is capable of automatically descending the aircraft to a preset altitude without pilot intervention. Underspeed protection (USP) allows the autopilot to assist with airspeed management, while also enabling fully coupled go-arounds, greatly reducing pilot workload. Additionally, operators gain access to more airports and lower approach minimums throughout the world as the G5000 has PBN/RNP 0.3 with LPV/APV approach capability.

## Bombardier Introduces Advanced Avionics Upgrade for In-Service Global Aircraft Equipped with the Bombardier Vision Flight Deck

Bombardier introduced its new Advanced Avionics Upgrade (AAU) for the Bombardier Vision flight deck, a new avionics software and hardware enhancement that boasts the latest technology to enhance situational awareness and offer advanced visualization features. Powered by Collins Aerospace and available for in-service Global 5000, Global 6000, Global 5500 and Global 6500 aircraft equipped with the Bombardier Vision flight deck, the AAU is designed to take in-service Global aircraft to the next level by providing avionics features currently available on in-production Global 5500 and Global 6500 aircraft.

The new AAU software allows for the installation of Bombardier's revolutionary Combined Vision System (CVS), which integrates the best features of the Synthetic Vision System (SVS) and the Enhanced Vision System (EVS) in a single view to reduce crew workload and achieve unmatched situational awareness with the clearest view through the toughest weather. A Global 6000 business jet is the first aircraft to receive the upgrade, which is currently being installed at the Wichita Service Centre.

"The new software upgrade for the Bombardier Vision flight deck is a gamechanger and we are delighted, along with Collins Aerospace, to bring our operators aircraft to new levels of operational excellence," said Paul Sislian, Executive Vice President, Aftermarket Services & Strategy, Bombardier. "The Bombardier Vision flight deck has been an important staple on Bombardier Global aircraft for years, and the addition of the Advanced Avionics Upgrade (AAU) ensures our business aircraft continue to be renowned for their impeccable safety, reliability and performance."

"The primary objective of this upgrade, and our long-term collaboration with Bombardier, is to proactively provide



information to the flight deck that improves safety and confidence in decision making," said Marc Ayala, senior director of sales, Business & Regional Avionics, Collins Aerospace.

On top of the Combined Vision System, operators can add other sought-after optional enhancements to their new avionics package, such as ADS-B in/Cockpit Display of Traffic Information (CDTI) and Airport Moving map/SVS Taxi mode. A brand-new, state-of-the-art weather radar will also be offered, enabling the Vertical Weather and Predictive Windshear featured options.

Important safety and performance-enhancing capabilities with the AAU include Engine Indicating and Crew Alerting System (EICAS) with improved message logic; an Integrated Flight Information System (IFIS) that sets the industry standard for system integration, quantity and quality of information; updated weather enhancements with XM/SXM Graphical Weather/DataLink

Graphical Weather; further improvements to the Electronic Flight Instrument System (EFIS) that provides updates to the head-up display (HUD), primary flight display (PFD) logic and Synthetic Vision System (SVS) for enhanced operational performance and more.

Installation of the AAU on in-service Global aircraft is available across the complete Bombardier service centre network. Bombardier's recently expanded network of service centers features locations across the U.S., Europe and Asia, including state of the art new buildings in Singapore, Miami Opa Locka, Melbourne, and London Biggin Hill. These state-of-the-art facilities employ factory trained technicians to ensure a seamless upgrade process. Bombardier also has 34 Mobile Response Team (MRT) vehicles, all equipped to support Learjet, Challenger and Global business aircraft, and connected to Bombardier's 24/7 Customer Response Centre and Customer Support Team.

# Textron Aviation and Netjets sign record-breaking fleet agreement for up to 1,500 Cessna Citation jets



Textron Aviation and NetJets® announced a record-breaking fleet agreement for the option for NetJets to purchase up to 1,500 additional Cessna Citation business jets over the next 15 years. This agreement extends NetJets' existing fleet agreement, and includes options for an increasing number of aircraft each year, enabling NetJets to expand its fleet with Cessna Citation Ascend, Citation Latitude and Citation Longitude aircraft. Equally exciting is the announcement that NetJets has been named the fleet launch customer for Textron Aviation's newest jet — the Citation Ascend. Deliveries of the Citation Ascend are expected to begin in 2025 when the aircraft, currently under development, is expected to enter into service.

"NetJets customers around the world continually select Citations as their aircraft

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

Since the inception of the more than 40-year relationship between the companies, NetJets has taken delivery of more than 800 aircraft from Textron Aviation, including exercising over 300 options for Citation Latitudes and Longitudes during the past eight years. This enduring relationship equips discerning customers with class-

leading, safe, and reliable aviation travel experiences worldwide. Through the years, NetJets has owned and operated industry-leading Citations including the Citation SII, V, Excel/XLS, Sovereign, X, Latitude and Longitude models.

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

## Embraer and FlightSafety opening new Praetor simulator



Embraer and FlightSafety International announced the opening of a new Praetor full-flight simulator in Orlando, Florida. The simulator is already qualified by the Federal Aviation Administration (FAA). Initial training for customers is available this month with the recurrent training scheduled to start in October. Both companies also announced the launch of the fourth Praetor simulator, which will be based in Europe, at a location to be announced at a later date. The new Praetor simulator is planned to start operating by the end of 2024.

“Offering additional training capacity is important for supporting our customers. These two new full-flight simulators bring us even closer to Praetor family pilots and operators in the United States and Europe and will provide us with the opportunity to share our latest technological updates and best-in-class support,” said Carlos Naufel, President & CEO, Embraer Services & Support.

“FlightSafety is committed to addressing the increasing demand for Embraer Praetor training,” said Nate Speiser, Executive Vice President of FlightSafety Sales and Marketing. “As Embraer’s training partner, we are proud to announce consecutive simulator deployments in two regions to support the worldwide training demand for this quickly growing fleet.”



## Satcom Direct Plane Simple® Ku-band terminal certified for Gulfstream G650



The Satcom Direct Plane Simple® Ku-band tail mount antenna system has received Federal Aviation Administration (FAA) supplemental type certificate (STC) approval for Gulfstream G650 aircraft. Satcom Direct worked directly with Gulfstream Aerospace Corp. to obtain the STC, with the antenna being installed for a U.S.-based corporate flight department. The SD Plane Simple Ku-band antenna variant will be available for installation through the Gulfstream service network beginning in October 2023.

The new STC gives Gulfstream G650 owners and operators access to the power, versatility, and convenient management of the SD Plane Simple advanced antenna technology, which is powered by the Intelsat FlexExec high throughput satellite network. A single phone call to Satcom Direct delivers consistently reliable high-speed data access for government, corporate and private customers. It also provides access to an added-value connectivity ecosystem of hardware, software, ground infrastructure, cybersecurity, and award-winning customer service to support consistently reliable high-speed data.

“This STC is significant for us as we continue to raise the connectivity bar with this new class of hardware, which has been purpose-built for the business aviation sector,” said Jim Jensen, CEO of Satcom Direct. “More importantly, it gives customers greater flexibility, cost-effective connectivity options, and a single resource to fulfill every connectivity need. We are the only connectivity provider to deliver genuine, global connectivity to business aviation. Our services are customized for each operator to meet their specific mission needs. Through our relationship with Intelsat, we do not share the airtime with any other sector, and with an established entry-into-service offering, flight departments and owners can be confident they can maximize their suite of connectivity products from day one.”

SD is already the exclusive provider of cabin connectivity service plans on both in-production and in-service aircraft for the Gulfstream Connectivity Service program, and the SD FlightDeck Freedom® (FDF) flight deck communications platform is the default datalink system for in-production Gulfstream G500, Gulfstream G600, and Gulfstream G650ER aircraft. “We have a long and strong relationship with Gulfstream and work closely with them to meet the needs of their customers. We’re pleased to be part of this latest STC effort on one of the world’s leading business jets,” added Jensen.

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## Headquarters

ANANTH TECHNOLOGIES PVT LTD.

Ananth Info Park, Plot No.39,  
Phase-II Madhapur

Hyderabad – 500 081

Tel:+91-40-6615 6615

Fax:+91-40-6615 6531

E-mail: [subbarao@ananthtech.com](mailto:subbarao@ananthtech.com)

[mail@ananthtech.com](mailto:mail@ananthtech.com)

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For more information please contact:

Mr. Nachiket Basole, Deputy Director, FICCI

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