



SPICEJET STRENGTHENS ITS INTERNATIONAL AND DOMESTIC NETWORK WITH NEW FLIGHTS



AIRASIA RESUMES FLIGHTS FROM INDIA TO MALAYSIA, THAILAND

AVIATION

India's premier aviation monthly magazine

Vol 08 | Issue 8 | May 2022 | ₹ 150
www.aviationupdatemagazine.com

UPDATE



Safran Group Promotes "Interpreneures" & Supports Participative Innovation".

Mr. Jetendra Gavankar

Managing Director - Safran He India



SANDIP UNIVERSITY

(UGC Recognised)

Fly High With
Globally Recognised
Degrees

B.Tech

- ★ Aerospace Engineering
- ★ Aeronautical Engineering

M.Tech

- ★ Aerospace Engineering



Admissions Open 2022-23



250+
Acre Wi-Fi
Enabled Campus



Up To 100%
Scholarships



100%
Placement
Assistance



Value Added &
Certification Programs
at No Extra Cost



Highly Qualified &
Experienced Faculty

Career Opportunities

Aerospace Engineering

- ✦ Aerodynamic Engineer
- ✦ Aerospace Engineer
- ✦ Aircraft design Engineer
- ✦ Spacecraft Designer
- ✦ Astronautical Engineer
- ✦ Flight Systems Test Engineer
- ✦ Rocket Engineer
- ✦ Wind Tunnel Engineer

Aeronautical Engineering

- ✦ Aircraft Engineer
- ✦ Flight Engineer
- ✦ Maintenance Engineer
- ✦ Materials Engineer
- ✦ Inspector & Quality Control Engineer

Industry Internship & Placement Partners



1800-212-2714



www.sandipuniversity.edu.in



30

Boeing Unveils First USAF T-7A Red Hawk Trainer

05 IndiGo becomes the first airline in Asia to land using GAGAN aided approach

08 DIAL introduces cloud-based Vesta-Service Quality Management platform at Delhi Airport

10 Embraer Delivers Six Commercial and Eight Executive Jets in 1Q22

22 Satcom Direct Plane Simple Antenna System Takes Off

29 BAE Systems to develop mission data framework for Space Systems Command



<< 06 Vistara Expands Its Domestic Footprint; Announces Direct Flights to Coimbatore



<< 09 BOC Aviation orders 80 A320neo Family



<< 23 Vista to acquire Jet Edge



<< 24 Textron Aviation announces order from flyExclusive for up to 30 Cessna Citation CJ3+ light jets

AVIATION UPDATE

India's premier aviation monthly magazine

Vol : 08 Issue : 8 MAY - 2022

Editor-in-Chief : B. Kartikeya

EDITORIAL

Special Editor : Rohith Reddy

Associate Editor : Mahua sinha roy

Correspondent : B. Martin

CREATIVE HEAD : Rajesh Bali

PHOTOGRAPHER : Krishanth

MARKETING

Manager, Marketing : Rohith Reddy

SUBSCRIPTION

Asst. Manager, Subscription : Naheda

Sr. Customer Support Officer : Sony

FINANCE & ADMINISTRATION

Sr. Manager : Karunandhi

Asst. Manager : Md. Wajid Ali

Editorial & Advertising Offices

Aviation Update

No 27, Rd Number 2a, Tirumala Hills,
Asmangad, Hyderabad, Telangana 500036, India.
Tel: 09444499221, 040-24055553.

Subscription/ Circulation

Annual Subscription: 1800 INR – 12 Issues

E-mail: info@aviationupdatemagazine.com

Letter to editor

editor@aviationupdatemagazine.com

For Advertising details contact

marketing@aviationupdatemagazine.com

All information in Aviation Update information is derived from sources, which we consider reliable and a sincere effort is made to report accurate information. It is passed on to our readers without any responsibility on our part. The publisher regrets that he cannot accept liability for errors and omissions contained in this publication, however caused. Similarly, opinions/ views expressed by third parties in abstract and/or in interviews are not necessarily shared by Aviation Update. However, we wish to advice our readers that one or more recognized authorities may hold different views than those reported. Material used in this publication is intended for information purpose only. Readers are advised to seek specific advice before acting on information contained in this publication which is provided for general use and may not be appropriate for the readers' particular circumstances.

Contents of this publication are copyright.

No part of Aviation Update or any part of the contents thereof may be reproduced, stored in retrieval system or transmitted in any form without the permission of the publication in writing. The same rule applies when there is a copyright or the article is taken from another publication. An exemption is hereby granted for the extracts used for the purpose of fair review, provided two copies of the same publication are sent to us for our records. Publications reproducing material either in part or in whole, without permission could face legal action. The publisher assumes no responsibility for returning any material solicited or unsolicited nor is he responsible for material lost or damaged. This publication is not meant to be an endorsement of any specific product or services offered. The publisher reserves the right to refuse, withdraw, amend or otherwise deal with all advertisements without explanation. All advertisements must comply with the Indian and International Advertisements Code. The publisher will not be liable for any damage or loss caused by delayed publication.

Printed at: Chennai offset printers
19/1 & 21/2 Kitabath Khan Bhadur Street,
Ellies Road, Mount Road, Chennai – 600 002

Aviation Update is published by - B. Kartikeya
No: 27/11, V.O.C. Street, T. Nagar, Chennai - 600 017



Hello Folks,

Welcome to yet another exciting issue of Aviation Update.

Time surely flies when you have lot of things on your plate. The Aviation Update team has certainly made great efforts to bring to our readers, the most crucial updates on aviation sector to keep them well informed. We are committed to shorten the information gap between the aviation industry and our readers. There are lots of informative updates in our quick update section. You can catch more update on the same in the Business Aviation & Defense and Military Section. This month, you have many a reasons to keep your fingers busy flipping past the pages.

We brought you this time an interview with Mr. Jetendra Gavankar Managing Director - Safran HE India and also we had a conversation with, the boy who dreamed to fly... Says "The biggest asset in the world is your mindset "Wg Cdr Abhijit Gokhale (Abbee TheRebel).

The career prospects that exist and will exist in near future in aviation field will provide a great motivation to the patrons wishing to enter aviation. We wish them a great success in the captivating and lucrative aviation sector. The biggest achievement for us would be the contribution we have made in bridging the gap between aviation enthusiast and the industry itself. We are always delighted to receive queries and feedbacks from our readers. We have incorporated many things as per the demand of our readers and subscribers.

We feel proud for being the only aviation magazine in India which is totally devoted on creating value for its readers and subscribers. We would also like to know from your end how has been your experience of reading Aviation Update so far has. Do you like its design, its information quotient or its tone of voice?

Feel free to reach out to us if you have any queries related to aviation. We share the same Passion and enthusiasm that are readers have for the world of aviation.

Thanks

B. Kartikeya
Editor

■ INDIGO BECOMES THE FIRST AIRLINE IN ASIA TO LAND USING GAGAN AIDED APPROACH



IndiGo became the first Airline in Asia to conduct Localiser Performance with Vertical Guidance (LPV) Approach. IndiGo conducted the LPV approach on its ATR 72-600 aircraft, equipped with GAGAN, at Kishangarh Airport (Ajmer) on April 28, 2022. This test flight is a part of the approval process with DGCA, which includes training of pilots, validation of approach, simulator sessions amongst others. The test flight was operated by Captain Sandip Sud and Capt Satish Veera and landed in the presence of Capt Shweta Singh, Dy CFOI, FSD, Cdr R.S. Jamwal, Director, ANS, Capt Adhiraj Yadav, SFOI, FSD, Capt Aditya Kumar Singh, FOI, FSD, Capt Vasu Gupta, FOI, FSD and Mr. Gaurav Raghuvanshi, AAI, and IndiGo team. This initiative was possible due to continuous endeavours of all stakeholders - MoCA, DGCA, ISRO, AAI and IndiGo

GAGAN an acronym for GPS Aided GEO Augmented Navigation is an indigenously developed Space Based Augmentation System (SBAS), jointly developed by ISRO and AAI to provide lateral and vertical guidance on an approach, approximating the accuracy of a Category I ILS. LPV capability provides the airline operators a precise and near-precision instrument approach option with the lowest minima relative to other approach options, when ILS is either not installed or unavailable, especially in case of RCS airports.

Mr. Ronojoy Dutta, Wholetime Director and CEO, IndiGo said, "This is a huge leap for Indian Civil Aviation and a firm step towards "Aatmanirbhar Bharat", as India becomes the third country in the world to have their

own SBAS system after the USA and Japan. GAGAN will be a gamechanger for civil aviation, leading to modernization of the airspace, reducing flight delays, bringing in fuel savings and improving flight safety. We would like to congratulate and thank MoCA, DGCA, ISRO and AAI for making IndiGo a part of this historical pilot that will change the flight path of Indian aviation."

DGCA issued a mandate for all aircrafts being registered in India after 1 July 2021 to be fitted with GAGAN equipment. GAGAN Satellite Based Augmentation System (SBAS) user equipment is interoperable with all international SBAS systems - WAAS, EGNOS & MSAS. In India's civil aviation sector, GAGAN will modernize the airspace, reduce flight delays, save fuel, and improve flight safety. Additionally, GAGAN will provide benefits to many other sectors including transportation, railways, surveying, maritime, highways, telecom, and security agencies.

■ SPICEJET STRENGTHENS ITS INTERNATIONAL AND DOMESTIC NETWORK WITH NEW FLIGHTS



SpiceJet the launch of new and additional non-stop flights on its domestic and international network. The airline has added new flights to its schedule including two industry-first flights, new domestic and international flights and additional frequencies. These non-stop flights will be starting from 26th April, 2022 in a phased manner.

With the new and additional flights, SpiceJet is strengthening its domestic and international network to meet current and emerging demands. The airline will be launching new non-stop international

flights connecting Ahmedabad with Muscat in Oman, Mumbai with Dhaka in Bangladesh, Kozhikode with Jeddah & Riyadh in Saudi Arabia and Mumbai with Riyadh & Jeddah in Saudi Arabia.

Apart from this, the airline will also be launching new domestic flights on the routes between Ahmedabad-Goa, Ahmedabad-Bagdogra, Ahmedabad-Shirdi, Mumbai-Tirupati and Mumbai-Guwahati.

SpiceJet is also enhancing frequencies on Delhi-Jabalpur, Delhi-Leh, Ahmedabad-Dehradun, Hyderabad-Shirdi, Mumbai-Goa and Mumbai-Srinagar routes.

Shilpa Bhatia, Chief Commercial Officer, SpiceJet, said, "We are delighted to introduce new flights on domestic and international routes. With the economy reviving from the pandemic slump, this will help us to enhance our presence in the aviation industry domestically as well as globally. The flights announced today includes a mix of industry first, new routes and enhanced frequencies covering both domestic and international destinations. Along with enhancing convenience for general travellers, tourism and local economy on these routes will get much needed boost as many of them are important religious and leisure travel destinations."

The airline's Boeing 737 and Q400 aircraft will be deployed on these routes. Bookings are now open on www.spicejet.com, SpiceJet's mobile app and through online travel portals and travel agents.

■ QATAR AIRWAYS AND INDIGO REACTIVATE STRATEGIC COOPERATION AS INDIA LIFTS SUSPENSION ON INTERNATIONAL SCHEDULED FLIGHTS



Qatar Airways, the multiple award-winning airline, and IndiGo, India's largest airline, announce the reactivation of their strategic cooperation following the lifting of the suspension on international scheduled flights by the Indian government.

Qatar Airways is currently operating 190 flights per week to and from 12 destinations in India, namely Delhi, Mumbai, Hyderabad, Bengaluru, Chennai, Kochi, Kozhikode, Ahmedabad, Amritsar, Goa, Kolkata, and Thiruvananthapuram. IndiGo is currently operating 154 flights per week between Doha and eight cities in India and that includes Mumbai, Delhi, Hyderabad, Bengaluru, Chennai, Kochi, Kozhikode, and Kannur. As part of this expanded code-share agreement, Qatar Airways will be placing its marketing code on IndiGo operated flights between Doha and Delhi, Mumbai, Hyderabad, starting from 25 April 2022, and Chennai, Bengaluru, Kochi, Kozhikode, starting from 09 May 2022.

Both Qatar Airways and IndiGo flights are optimally connected to Qatar Airways' hub, the award winning Hamad International Airport in Doha. This allows passengers to benefit from seamless and convenient connections to the airline's entire route network, including North America, Europe, Africa, and Asia/Australia.

Qatar Airways Group Chief Executive, His Excellency Mr. Akbar Al Baker, said: "The reactivation of our strategic partnership with IndiGo is another milestone in the development of aviation between the State of Qatar and India. Together, both Qatar Airways and IndiGo will offer over 340 flights per week to 13 destinations in India. Never before has our partnership with IndiGo been stronger and the resumption of our strategic cooperation demonstrates the resilience, have agility and commitment had both partners shown in overcoming the challenges of the pandemic."

Mr. Ronojoy Dutta, Wholetime Director and Chief Executive Officer, IndiGo added: "We are excited to reactivate our code-share agreement with Qatar Airways, one of the world's fastest growing airlines. We are confident this strong partnership will not only expand opportunities for the customers, but also boost trade and tourism in both the countries. With the easing of

restrictions, we believe that this will create economic growth through IndiGo's seamless nationwide connectivity. We look forward to serving customers on our lean, clean flying machine, as we extend to them our on-time, affordable, courteous and hassle-free travel experience."

VISTARA EXPANDS ITS DOMESTIC FOOTPRINT; ANNOUNCES DIRECT FLIGHTS TO COIMBATORE



Vistara announced the addition of Coimbatore (Tamil Nadu) to its domestic network with direct connectivity to and from Delhi, Mumbai and Bengaluru, progressively, starting 20 May 2022. Coimbatore is the 31st destination in Vistara's domestic network, and its second destination in the state of Tamil Nadu, after Chennai. The airline will operate daily flights to the city from Delhi and Mumbai effective 20 May and 27 May respectively; and double daily connectivity from Bengaluru starting 03 June 2022.

Mr. Vinod Kannan, Chief Executive Officer, Vistara, said, "We are delighted to be adding Coimbatore to our domestic network and further strengthening our presence in the South of India. Coimbatore is a popular tourist destination and a key industrial hub of Tamil Nadu. We are confident that travellers will appreciate having the choice of flying Vistara on the routes and enjoy our award winning product and services."

Bookings for flights to and from Coimbatore are open on all channels, including Vistara's website, www.airvistara.com, Vistara's iOS & Android mobile apps and through Online Travel Agencies (OTAs) and travel agents.

STRATEGIC BUYER APPROVED FOR DISINVESTMENT OF PAWAN HANS LIMITED



The Alternative Mechanism, empowered by the Cabinet Committee on Economic Affairs, comprising Shri Nitin Gadkari, Union Minister for Road Transport and Highways, Smt. Nirmala Sitharaman, Union Minister for Finance & Corporate Affairs and Shri Jyotiraditya M. Scindia, Union Minister of Civil Aviation, has approved the highest bid of M/s Star9 Mobility Private Ltd for sale of entire GoI's shareholding (51% of shareholding) of Pawan Hans Limited (PHL) and transfer of management control.

PHL is a joint venture of GoI and ONGC providing helicopter and aero mobility services. GoI holds 51% of the shares in the company and ONGC holds the balance 49%. ONGC has earlier decided to offer its entire shareholding to the successful bidder identified in the GoI strategic disinvestment transaction, on the same price and terms as GoI.

CCEA had approved the strategic disinvestment of entire GoI stake in PHL in October, 2016. The transaction had been attempted thrice in the past. In the first round, the Preliminary Information Memorandum (PIM) was issued on 13 October 2017 seeking Expressions of Interest (EOI). Out of four EOIs received, only one was found eligible and the transaction was cancelled. In the second round, PIM was issued seeking EOIs on 14 April, 2018 and two bidders were found eligible and were issued the Request for Proposal (RFP). Finally, however, a single, incomplete bid non-compliant with the RFP was received. In the third round, PIM was issued seeking EOIs on 11 July 2019. Out of four EOIs received, only one was found

eligible and the process was cancelled. This is the fourth iteration with request for Expressions of Interest (Eoi) invited on 8 December 2020. Seven Eois were received and four interested bidders were shortlisted as qualified bidders. After detailed due diligence, the qualified bidders were invited to submit financial bids. Three financial bids were received.

As per extant procedure, the Reserve Price for sale of 51% shareholding of PHL was fixed at Rs 199.92 crore, on the basis of valuation carried out by experts (transaction adviser and asset valuer). Thereafter, the three bids were opened in the presence of the bidders. All three bids were found to be valid. M/s Star9 Mobility Private Ltd, a consortium of M/s Big Charter Private Limited, M/s Maharaja Aviation Private Limited and M/s Almas Global Opportunity Fund SPC; emerged as the highest bidder quoting Rs 211.14 crore, which was above the Reserve Price. The other two bids were for Rs 181.05 crore and Rs 153.15 crore. Following due deliberations, the financial bid of M/s Star9 Mobility Private Limited has been accepted by the Government.

The strategic disinvestment transaction was implemented through an open, competitive bidding process supported by a multi-layered consultative decision making mechanism involving Inter Ministerial Group, Core Group of Secretaries on Disinvestment and the empowered Alternative Mechanism. The transaction now moves to the concluding stage. The next steps are issuing of the Letter of Award, signing of the Share Purchase Agreement and closing of the transaction.

PHL has been incurring losses in the last three years (FY-19, FY-20 and FY-21). The company has a fleet of 42 helicopters with 41 of them owned by the company. The owned helicopters have an average age of over 20 years and three-fourths of them are presently not being manufactured by the original equipment manufacturer. With this privatization, it is expected that the strategic buyer will revitalize the company by replacing the aging fleet through infusion of fresh capital and improve the performance of the company.

AIRASIA RESUMES FLIGHTS FROM INDIA TO MALAYSIA, THAILAND



AirAsia is ready to once again provide the best value international flights from India to Malaysia and Thailand with flights now available from April and May 2022 onwards.

Six new routes from India to Malaysia include Bengaluru to Kuala Lumpur (KL) and Chennai to Kuala Lumpur (commencing 1 April 2022), Tiruchirappalli to KL from 5 April, Kochi - KL commencing 18 April, Kolkata - KL commencing 23 April and Hyderabad - KL commencing from 01 May, 2022.

Five new routes launching India to Thailand will include Bengaluru-Bangkok (Don Mueang) commenced on 04th May, Chennai-Bangkok (Don Mueang) on 04th May, Kolkata-Bangkok (Don Mueang) commenced on 02nd May, Kochi-Bangkok (Don Mueang) commenced on 01st May, and Jaipur-Bangkok (Don Mueang) 01st May.

Guests can now fly with ease as quarantine requirements have been lifted and enjoy a discount of 20% off on All Seats, and on ALL Flights* for bookings made between 4 and 10 April 2022, for the travel period from 1 May 2022 until 25 March 2023. Bookings are available on the AirAsia Super App by clicking the 'Flights' icon.

Manoj Dharmani, AirAsia's Regional Commercial Head for India, Sri Lanka & Bangladesh, acknowledged that "AirAsia's resumption of international flights has been highly anticipated by both the airline and its guests. With Malaysia and Thailand reopening and travel restrictions being lifted, AirAsia will be continually re-

introducing international services, starting from April 2022. In this regard, India, Malaysia, and Thailand are countries with significant potential in terms of stimulating tourism and reigniting the economy. We believe that our flight resumption will bring great opportunity and support to the countries' economic recovery."

SPICEJET INTRODUCES NEW FLIGHT CONNECTING NEW DELHI AND PANTNAGAR



SpiceJet announced the launch of a new flight connecting New Delhi and Pantnagar in Uttarakhand. The airline will operate daily direct flight between the two cities with operations commencing from 8th April, 2022.

Shilpa Bhatia, Chief Commercial Officer, SpiceJet, said, "We are extremely delighted to connect New Delhi with Pantnagar marking a new phase of enhanced connectivity between the national capital and Uttarakhand. In addition to increasing connectivity to the state's many tourist destinations, our direct flight will have a positive impact on boosting the local economy. Since Pantnagar airport is well connected to important tourist destinations in Uttarakhand such as Nainital, Ranikhet, Jim Corbett National Park, Bhimtal and Almora, the new flight will be beneficial to both tourists and residents in the state, as well as help in reviving the travel and tourism sector."

The airline's Q-400 aircraft will be deployed on this route. Bookings are now open on www.spicejet.com, SpiceJet's mobile app and through online travel portals and travel agents.

DIAL INTRODUCES CLOUD-BASED VESTA-SERVICE QUALITY MANAGEMENT PLATFORM AT DELHI AIRPORT



Delhi International Airport Ltd (DIAL), a GMR Infrastructure Limited-led consortium has introduced a state-of-the-art Service Quality Management platform that will help the airport operator in enhancing the travel experience of passengers at Indira Gandhi International (IGI) Airport. For this, DIAL has implemented Vesta, a cloud-based Mobile-First Airline Operations Management Platform – a next-generation operations architecture with a robust and dynamic delivery model – to tackle and improve its terminal operations.

Vesta Airport Operations Management System will help DIAL in handling its operations faster than traditional methods. It will help DIAL in improving its productivity, automate its terminal services, increase operational flexibility to handle future growth in passenger traffic, and, reduce costs. The platform will help the terminal operations teams in the automation of handling of passenger requests, complaints, and maintenance jobs and, thus help DIAL in providing enhanced passenger experience at the airport.

The platform will provide DIAL-Estate department managers with the ability to structure daily operations in a more efficient and organized manner by making real-time data available at their fingertips. It will also help optimize communications among all departments, boost the productivity of employees and third-party vendors by efficient use of resources, streamline operations and connect teams. This will help DIAL in making smarter decisions that are backed by real-time data and detailed

records.

Vesta is a core facility operations product of Check-Inn Technologies that focuses on providing cloud-based solutions. Vesta is a complete communication platform that brings all operations on a unified platform for better visibility across department operations. It creates requests, manages tasks, and sends notifications in real-time. It does trouble-shooting of complaints on a real-time basis and ensures its resolution from a single office seat.

Speaking on the occasion, Videh Kumar Jaipuria, CEO-DIAL, said, "DIAL has been working to provide world-class services to the passenger at Delhi Airport. During the pandemic, Delhi Airport has introduced several initiatives to ensure 'flying is safe' without compromising service quality. We have introduced the new platform that will facilitate the automation of handling of passenger requests, complaints, and maintenance jobs. It will also help us in capturing, tracking, and significantly reducing service breakdowns and digitizing daily housekeeping activities resulting in a significant increase in productivity and turn passenger satisfaction scores."

Sharang Majumdar, Co-founder, COO at Vesta said, "We are proud to partner with DIAL in its digital transformation journey. At Vesta, we are committed to helping airports function better by boosting operational efficiency that results in improved service quality. At IGIA, our team helped set up the system in a way that enables the employees and vendors across 28 departments and levels, to fully maximize the power of Vesta."

QANTAS LAUNCHES FIRST DIRECT ROUTE BETWEEN AUSTRALIA AND SOUTHERN INDIA, SET TO TEAM UP WITH INDIGO



Australia's national airline Qantas will fly non-stop from Bengaluru to Sydney and is finalising a codeshare partnership with IndiGo to make travel between India and Australia easier. From 14 September, Qantas will operate four weekly return flights between Kempegowda International Airport in Bengaluru and Sydney's Kingsford Smith International Airport with its widebody Airbus A330 aircraft.

These are the first direct flights between Australia and southern India by any airline, cutting almost three hours off the current fastest trip between Bengaluru and Sydney.

The Bengaluru community has strong connections with Australia for both business travel and people visiting friends and relatives. Famous for its beautiful beaches and iconic landmarks the Sydney Harbour Bridge and Opera House, Sydney is one of the world's most iconic cities. The new route is being supported by Bengaluru's award-winning Kempegowda International Airport.

Qantas will continue to operate up to five flights a week between Melbourne and Delhi, making it the only airline offering direct flights between both northern and southern India and Australia. Travellers are also set to benefit from improved one-stop access to Sydney from more than 50 Indian cities, as part of a proposed codeshare agreement between Qantas and IndiGo. Once finalised, customers will have more convenient access from not only the major Indian cities, but many popular regional cities such as Pune and Goa. The proposed codeshare agreement will enable seamless connections via Bengaluru, Delhi, or Singapore into Australia's largest capital cities.

Qantas is Australia's leading premium airline, with all customers receiving complimentary food, drinks, baggage, and inflight entertainment.

As part of the proposed agreement, customers who join the Qantas Frequent Flyer program will be able to earn and redeem points on connecting IndiGo flights (QF code only) and IndiGo will recognise Qantas Frequent Flyer benefits for tiered members (Silver, Gold, Platinum and Platinum One) including priority check-in, additional baggage allowance and priority

baggage.

Qantas customers travelling on IndiGo will enjoy the same baggage allowance for the entire journey as well as complimentary food and drinks.

The partnership will extend to Jetstar customers who will be able to book connecting flights on IndiGo services through its Jetstar Connect platform on jetstar.com, currently intended to start from late April. IndiGo will introduce reciprocal benefits for its customers to connect on Qantas and Jetstar in the future. Sydney-Bengaluru flights go on sale today starting from ₹78,380 return.

■ BOC AVIATION ORDERS 80 A320NEO FAMILY



Global aircraft operating lessor BOC Aviation has signed a firm order for 80 A320neo family aircraft comprising 10 A321XLR, 50 A321neo and 20 A320neo. The latest agreement takes BOC Aviation's total direct orders with Airbus to 453 aircraft from the single aisle A320 Family to the A330 and A350 widebodies.

"We are proud to continue our long-standing relationship with Airbus, with whom we have partnered for more than 26 years," said Robert Martin, Managing Director and Chief Executive Officer, BOC Aviation. "This is the largest single order that we have ever placed and it will bring our total Airbus aircraft purchased since inception to 546. It underscores our continued confidence in the A320neo family for its reliability and operational efficiency and reflects the popularity of the aircraft amongst our airline customers. We look forward to continuously providing our customers with such fuel-efficient and technologically advanced aircraft solutions."

"Airbus thanks BOC Aviation for its unwavering trust and endorsement of the A320neo Family with its single largest order ever placed," said Christian Scherer Airbus Chief Commercial Officer and Head of Airbus International. "This significant long term order for 80 additional aircraft is a great testimony of the sustained value of our Single Aisle products by one of the world's leading lessors, BOC Aviation. We salute its vision and foresight in securing future delivery positions of these most desirable assets in the single aisle segment now and in the longer run."

The A320neo Family incorporates new generation engines and Sharklets, which together deliver at least 20 percent fuel and CO2 savings, as well as a 50 percent noise reduction. The A321XLR version provides a further range extension to 4,700nm. This gives the A321XLR a flight time of up to 11 hours, with passengers benefitting throughout the trip from Airbus' award-winning Airspace interior, which brings the latest cabin technology and design to the A320 Family.

At the end of February 2022 the A320neo Family had totalled more than 7,900 orders from over 120 customers. Since its Entry into Service six years ago, Airbus has delivered over 2,100 A320neo Family aircraft contributing to 10 million tons of CO2 saving.

■ ETHIOPIAN MARKS 50 YEARS OF UNINTERRUPTED SERVICE TO MUMBAI



Ethiopian Airlines, Africa's largest airline group is celebrating its 50 years of continuous service to Mumbai. Ethiopian Airlines made its debut flight to Mumbai, one of its oldest destinations in Asia, on

01 December 1971 although it started operations to New Delhi in 1966, just 20 years after the airline was founded.

The once a week flight from Addis Ababa to Mumbai and onward to Peking operated by B720 aircraft pioneered the air transport linkage between Africa-India and China. Gradually over the years, the frequency increased to twice and then thrice weekly until Ethiopian commenced daily operations to Mumbai. A moment of pride for Ethiopian Airlines Mumbai operations was on 12

February 2015 when the airline increased its services to Mumbai to double daily proving the great scope it had in the commercial capital of India. Ethiopian has expanded its operation to three passenger and five cargo destinations with its enhanced services and modern fleet.

Marking the 50 years of uninterrupted service to Mumbai, Ethiopian Airlines Group CEO Mr. Mesfin Tasew said, "We are thrilled to have celebrated this big milestone-50 years of uninterrupted service to Mumbai thereby connecting the people of India to the vast Ethiopian global network. Mumbai is the commercial capital of India and one of the key destinations in Asia; we will maintain our commitment to serve Mumbai, thereby providing it access to our 127 destinations with our latest aircraft. Ethiopian has paved the way for people to people and trade ties between India and Africa with its multiple destinations in India. We are glad to have served Mumbai and the people of India in general for the last 55 years."

■ PHASE 1 OF THE STOL (SHORT TAKE-OFF & LANDING) CONVERSION NEARS COMPLETION



STOL conversion
Phase 1

The new 30 to 50 seater aircraft will be capable of landing on runways as short as 800 meters (2,625ft). Phase one of the conversion of the ATR 42-600 prototype (MSN 811) into a 42-600S STOL variant is nearly complete.

The next phase of ground tests will be followed by the first flight in partial STOL configuration.

Simone Stanchi, STOL Program Director and François Lannaud, STOL Program Manager talk us through the modifications brought to MSN 811 to turn it into this first version of the STOL: reinforcement of the rear fuselage, installation of the autobraking and ground spoiler systems as well as all the multi-functional computer systems controlling these new features.

The installation of the new, larger rudder is planned later this year after several weeks of ground and flight tests.

■ EMBRAER DELIVERS SIX COMMERCIAL AND EIGHT EXECUTIVE JETS IN 1Q22



Embraer delivered a total of 14 jets in the first quarter of 2022, of which six were commercial aircraft and eight were executive jets (six light and two large). As of March 31, the firm order backlog totaled USD 17.3 billion.

Embraer delivered 56 Phenom 300 series light jets in 2021, signaling a decade of product excellence and market dominance. The Phenom 300 series has had an annual average of 50 aircraft delivered per year since entering the market in December 2009. In the first quarter of 2022, Executive Aviation sales continue to grow.

In the Defense segment, Embraer signed two contracts with the Brazilian Army. The first for the Army's acquisition of four additional SABER M60 radar units, in its 2.0 version, and the second for the

development and deployment of Phase Two of the Army's Strategic Program for the Integrated Border Monitoring System (SISFRON).

In the Services and Support segment, Embraer signed a comprehensive long-term services agreement with Air Peace to support the airline's fleet of E195-E2 and ERJ 145 jets. The contract includes access to the Pool Program, which includes component exchange and repair services for hundreds of items on Air Peace's Embraer aircraft, and the installation of Ahead-Pro (Aircraft Health Analysis and Diagnosis - PROgnosis) in the E195-E2 company's fleet. In addition, Embraer signed a long-term contract extension for the Pool Program with German Airways.

■ BOEING SUCCESSFULLY DEMONSTRATES GROUND-BASED ANTI-JAM SATCOM CAPABILITY



Boeing recently demonstrated successful integration of its Protected Tactical Enterprise Service (PTES) software elements with an industry partner's user terminal, proving technical maturity on the U.S. Space Force's pathfinder program.

"The Space Force and our industry partners are employing continuous integration, rapid prototyping and agile development across the PTES program to ensure successful deployment of this critical capability, at mission relevant-speed," said Ms. Charlotte Gerhart, Space Systems Command's Tactical SATCOM division chief. "A great deal of coordination and real-time collaboration is required for industry teammates to achieve a successful integration event like this one. To fulfill our vision of digital dominance, the Space Force is building on these types of

accomplishments to continue developing the most advanced mission-enabling technology to counter the threat."

PTES provides ground-based Protected Tactical Waveform (PTW) processing, enabling secure operations and protected tactical communications coverage over Wideband Global SATCOM (WGS) satellites – and eventually on commercial satellites – without spacecraft modification. PTW, the U.S. military's jam resistant waveform, provides security features for data protection.

Making use of WGS military-unique features in conjunction with its wide bandwidth for PTW spread spectrum hopping, PTES-over-WGS provides the U.S. Department of Defense with crucial fleetwide protected communications anywhere on the globe. It mitigates interference and adversarial jamming for high-data-rate satellite communications in contested environments, creating greater resiliency and enabling missions in otherwise denied areas.

At the integration event, the latest in a series of incremental capability demonstrations, Boeing showcased PTES' encryption capabilities in a virtual environment.

The successful demonstration validated the Boeing-developed key management system's ability to interface with a PTW ground terminal. It also validated the network management software and virtualized mission planning components. These software elements combine to provide the mechanism for secure communication with the ground terminal.

"This incremental system demonstration provides valuable feedback from Space Force operators and other members of the user community, reducing development and integration risk, while ensuring system capabilities are adaptable to change," said Troy Dawson, Boeing's vice president of Government Satellite Systems. "We're committed to the Space Force's mission to rapidly develop and deploy technology at operationally-relevant speed. Our PTES program demonstrates how stakeholder collaboration and agile development enable continued advancements to meet the evolving threats on the battlefield."

In August 2021, Boeing and the Space Force successfully completed the PTES program's first over-the-air forward-link demonstration using a PTW modem. The next over-the-air demonstration, which includes forward and return-links, is planned for later this year. Initial operational capability is slated for 2023.

As an industry leader in tactical military satellite communications, Boeing is responsible for a portfolio of programs to deliver protected high-data-rate communications to the warfighter. In addition to PTES, Boeing is the prime contractor for the WGS system, as well as the Mitigation and Anti-Jam Enhancement (MAJE) upgrade to the WGS fleet.

PTES is the ground-based anti-jam capability the U.S. Space Force is developing within the Protected Anti-Jam Tactical SATCOM (PATs) portfolio. Boeing is also developing a spaced-based PTW hub, the Protected Tactical SATCOM Prototype (PTS-P).

EVE AND THALES ENTER A PARTNERSHIP TO DEVELOP EVTOL AIRCRAFT



Eve UAM, LLC, an Embraer company, and Thales, a global technology leader providing solutions, services and products in the defence, aeronautics, space, transportation, digital identity and security markets, have teamed up to support the development of Eve's electric vertical take-off and landing aircraft (eVTOL) in Brazil. The strategic partnership involves a series of joint studies over a twelve-month period, which started in January 2022, on the technical, economical and adaptable feasibility of a 100% electrically powered aircraft. Thales will also contribute with its expertise in developing avionics, electric,

flight control, navigation, communication, and connectivity systems.

"This partnership will strengthen Eve's position as a leading player in the global market and our commitment to delivering an effective and sustainable new mode of urban transportation. Embraer is a leading player in aviation in Brazil and globally and has partnered with Thales for more than thirty years, and now Eve will leverage this partnership too," said Andre Stein, co-CEO of Eve.

"Thales is actively engaged in Urban Air Mobility emergence. We are particularly proud to take a new step in Brazil, joining Eve in a project that can be a game-changer for sustainable urban mobility worldwide," said Yannick Assouad, Executive-Vice President, Avionics, Thales. "This industry is coming to stay and will bring many advantages to the country, particularly concerning the environment, due to the use of clean energy."

Both Thales Technological Space Centre, in São José dos Campos, and their recently opened Avionics Centre, in São Bernardo do Campo, will provide support to Eve's and Embraer's teams working on the project, which will also rely on Thales' engineers from France, Canada and the United States.

INFOSYS AND ROLLS-ROYCE EXTEND STRATEGIC COLLABORATION WITH LAUNCH OF JOINT 'AEROSPACE ENGINEERING AND DIGITAL INNOVATION CENTRE' IN INDIA



Infosys a global leader in next-generation digital services and consulting, and Rolls-Royce, one of the world's leading industrial technology companies, today inaugurated

their joint 'Aerospace Engineering and Digital Innovation Centre' in Bengaluru, India. This centre has been established to provide high-end research and development (R&D) services integrated with advanced digital capabilities to Rolls-Royce's engineering and group business services from India. Infosys and Rolls-Royce's collaboration has been reinforced through strategic deals, aimed at yielding mutual benefits to both organisations over the next seven years.

Speaking about the new centre, Kishore Jayaraman, President – India and South Asia, Rolls-Royce, said, "Our strategic partnership with Infosys presents an exciting opportunity for both companies to leverage combined strengths in engineering and digital innovation to accelerate growth in the civil aerospace market. Given the aerospace sector is poised for revival and growth in India and across the world, this joint innovation centre will strengthen Rolls-Royce's global engineering ecosystem and position us well for the future."

Astrid Hartmann, Director of Global Business Services, Rolls-Royce added, "Infosys is a valued partner to Rolls-Royce, and the capabilities from this collaboration will certainly enhance our shared services portfolio and bring greater value to the business. We remain committed to India and look forward to tapping the rich talent and potential in this market."

Commenting on the engagement, Jasmeet Singh, Executive Vice President and Global Head of Manufacturing, Infosys, said, "We are delighted to extend our collaboration with Rolls-Royce and work towards digitally transforming engineering and business process management shared services in India. We will aim to be a catalyst for Rolls-Royce to deliver efficiency, effectiveness and experience while driving continuous change towards creating a value ecosystem that is sustainable. This engagement is testament to the longstanding collaboration between Infosys and Rolls-Royce, which is poised to set new benchmarks in the aerospace, defence, and manufacturing sectors."

Mr Bhanu Prakash Srivastava takes charge as Director (Other Units) of BEL



Mr Bhanu Prakash Srivastava has assumed charge as Director (Other Units) of Navratna Defence PSU Bharat Electronics Limited (BEL) with effect from April 20. He was serving as General Manager of the Advanced Defence Systems-Navy (ADSN) Strategic Business Unit at BEL's Bangalore Complex before his elevation.

Mr Bhanu Prakash Srivastava holds a degree in Bachelor of Technology (Mechanical Engineering) and Master of Business Administration. He joined BEL in August 1986 and in a career spanning 36 years gained rich experience in diverse functions such as Manufacturing, Project Management, Quality Management, Materials Management, Design & Development and Product Support. He has a good understanding of the Defence business and is well versed in related processes such as Manufacturing, Trial & Evaluation of equipment, Customer Inspection and Clearance, and After Sales Service & Support.

Mr Bhanu Prakash Srivastava, during his long association with BEL in various senior Management positions, has made major contributions towards sustained business growth and profitability in the areas of Radio & Data equipment, Military and Telecom Switching Equipment, C4I System for Civil & Military applications, Radars for Army, Air Force and Navy, Sonars, Fire Control Systems & Communication systems for Navy, Surface-to-Air Missile project for Naval Ships, etc.

General Manoj Pande takes over as Chief of Army Staff



General Manoj Pande took over as the 29th Chief of the Army Staff on 30 April 2022 from General Manoj Mukund Naravane, who superannuated after four decades of an illustrious career.

The General officer is alumnus of the National Defence Academy and was commissioned in December 1982 in the Corps of Engineers (The Bombay Sappers). He has commanded an Engineer Regiment during Operation PARAKRAM in the sensitive Pallanwala Sector of Jammu and Kashmir, along the Line of Control. The General Officer is a graduate of Staff College, Camberley (United Kingdom) and attended the Higher Command and National Defence College Courses.

In his four decades of distinguished military career, he has tenanted important and challenging command and staff appointments in different operational environments which include command of an Engineer Brigade in the Western Theatre, as part of Strike Corps, an Infantry Brigade along Line of Control in Jammu and Kashmir, a Mountain Division in the High Altitude Area of Western Ladakh and command of a Corps, deployed along the Line of Actual Control and in Counter Insurgency Operations area of Eastern Command. His staff exposures include Brigade Major of a Mountain Brigade in the North East, Assistant Military Secretary in Military Secretary's Branch, Colonel Q of a Mountain Division in High Altitude Area and Brigadier General Staff (Operations) at Headquarters Eastern Command. The General Officer has served as Chief Engineer in the United Nations Mission in Ethiopia and Eritrea. He has also tenanted the appointments of Additional Director General in the Military Operations Directorate at Army Headquarters, Chief of Staff Headquarters Southern Command and Director General Discipline Ceremonial & Welfare at the Army Headquarters. He was Commander-in-Chief Andaman & Nicobar Command from June 2020 to May 2021 and General Officer Commanding-in-Chief Eastern Command from June 2021 to January 2022 and was tenanted the appointment of Vice Chief of the Army Staff from 01 February 2022.

For his illustrious service, he has been conferred with the award of Param Vishisht Seva Medal, Ati Vishisht Seva Medal and Vishisht Seva Medal. The General Officer is also The Colonel Commandant, The Bombay Sappers.

Saab Appoints Mats Palmberg as India Head



Mats Palmberg, currently Head of Saab's Gripen India Campaign and Vice President of Industrial Partnerships at Saab, will be the new Chairman and Managing Director of Saab India Technologies Pvt. Ltd (SITPL).

Mats' appointment as Saab's Head of Country Unit India further reinforces the company's long-term commitment to India. Mats already has many years of experience working across the Indian defence and aerospace industry at all levels. As the leader of Saab's Gripen campaign in India he has been a strong advocate for Saab's commitment to Make-in-India and Atma Nirbhar Bharat.

Mats' predecessor, Ola Rignell, will take on new responsibilities within Saab in Sweden after his successful time spent expanding Saab's presence in India. Mats Palmberg will take over from Ola Rignell on 1 May 2022.

"Mats Palmberg assumes the vital role of leading Saab's Indian business at a very important time. I salute the great work done by Ola Rignell and I welcome the continuing expertise and continuity that Mats' appointment brings. The Indian government's policy of encouraging Atma Nirbar Bharat and Make-in-India is fully in line with Saab's commitment to building a strong industrial base in India. We see opportunities for further and deeper partnerships with Indian companies, to meet growing needs at a global level. With his long experience of India and deep knowledge of building industrial partnerships, Mats is well-suited to drive Saab's goals in India; to build strong partnerships with Indian industry and meet the needs of India's defence and security forces," says Dean Rosenfield, Senior Vice President, Chief Marketing Officer, Saab.

Since joining Saab in 1984 Mats has held senior management positions in marketing, strategy and industrial cooperation during his long career working with commercial and defence programmes in the aeronautics sector. Prior to his current assignment he was Vice President, Head of Marketing and Future Products. He was also instrumental in establishing Saab as a Tier One partner to Airbus and Boeing as well as forging partnerships with many other international OEMs in the aviation world.

Scott Nelson Takes Sales VP Role for Gulfstream



Gulfstream Aerospace announced the promotion of Scott Nelson to division vice president of North American Sales for the Southeast, Midwest and South-Central U.S. division. Nelson replaces William "Bill" McLeod, who is retiring after a 40-year-long tenure at Gulfstream.

Nelson joined Gulfstream in 2006 as a financial analyst for new aircraft sales and has held a variety of finance management roles. Most recently, he served as the director of aircraft sales finance. In his new role, he will lead the Gulfstream North American sales team's efforts in the Southeast, Midwest and Southwest United States.

"Scott Nelson is a respected leader in our organization whose background and experience are well-suited for his new role," said Scott Neal, senior vice president, Worldwide Sales, Gulfstream.

McLeod spent his entire career at Gulfstream, joining the company as a college co-op student in 1982. During his career, he held positions of increasing responsibility across Gulfstream before joining the sales team where he helped Gulfstream grow its presence in the North American market.

"Bill has had a distinguished career that has successfully positioned Gulfstream well for the continued growth of our fleet in the U.S. and beyond," said Neal. "We thank him for his many contributions and wish him well in his retirement."

IndiGo appoints Mahesh Malik as Chief Commercial Officer – CarGo effective May 15, 2022

Over the last several years, the Cargo industry in India has been witnessing exponential growth and IndiGo has been in the forefront of serving this industry via air connectivity across the country and neighboring nations. In addition to belly CarGo that IndiGo traditionally carries, since the pandemic, we made configuration changes to some of our aircraft to carry in-cabin CarGo. Over the next few months, IndiGo is planning to induct freighters into its fleet. To support this growth and to bring in enhanced focus on CarGo operations, IndiGo today announced the appointment of Mahesh Mallik as Chief Commercial Officer – CarGo.

Ronojoy Dutta, Chief Executive Officer, IndiGo, said, “We are delighted to announce Mahesh’s appointment as our Chief Commercial Officer – CarGo. Mahesh has more than four decades of experience in the aviation industry managing different areas of Cargo sales, operations, and business development; working not just in the Indian market but with global customers as well. I would also like to thank Willy Boulter, who ends his contract with IndiGo on July 15, 2022, for effectively leading our CarGo business for the last four years.”

Mahesh Malik said, “I am delighted to join the IndiGo team and its talented senior leadership, many of whom I have had the joy of working alongside for decades. Over the past several years, the Cargo industry has gone through a period of transformative change; and with change comes opportunity. Coming in at this pivotal moment in the company’s journey, I envision creating new value and opportunity for our customers and partners around the world and harnessing our core strength as an advantage to grow in our traditional markets and accelerate our entry into new ones.”

Mahesh’s last assignment was as the Director, CEO & President at AVIAPRO Logistic Services Private Limited, heading the Cargo GSSA of Vistara. Prior to AVIAPRO, he worked with InterGlobe Air Transport (IGAT) as Vice President Cargo, where he managed sales and operations of airlines represented by IGAT as their Cargo GSSA. During his tenure at IGAT, he also helped launch IndiGo CarGo.

CAE announces the appointment of Patrick M. Shanahan to CAE’s Board of Directors



CAE announced the appointment of Patrick M. Shanahan as a new member of CAE’s Board of Directors.

“We are very pleased to welcome Patrick M. Shanahan to CAE’s Board of Directors. Shanahan’s more than 30 years of experience in the defense sector will help CAE achieve greater alignment with the needs and priorities of National Defense Departments, from the U.S. and Canada, to NATO and allies worldwide. He brings deep knowledge of Defense policy, strategy, technology, supply chain and operations that will strengthen our Board.” said the Honourable John Manley, Chair of CAE’s Board of Directors.

Shanahan served as Acting U.S. Secretary of Defense in 2019 and as Deputy Secretary of Defense from 2017 to 2019. He also helped lead the development of several key U.S. Department of Defense policies and strategies in 2018 and 2019.

Shanahan also provided critical leadership in the creation of the Space Force and execution of the first-ever full-scope U.S. Department of Defense financial statement audit. He was a champion of digital and technological advancement for the department, spearheading modernization in cybersecurity, artificial intelligence, cloud computing and command, control and communication. Shanahan also established the Joint Artificial Intelligence Center in 2018 and published The Department of Defense’s Artificial Intelligence Strategy.

Shanahan previously served as Senior Vice President, Supply Chain & Operations at The Boeing Company. He joined Boeing in 1986, becoming involved in Computer Services and the Boeing 777 program. Over the course of his career, he held management roles with respect to the Boeing Defense Systems, as well as 737, 747, 767, 777, and 787 commercial airline programs. He served at Boeing until 2017.

IndiGo appoints Vikram Singh Mehta and Air Chief Marshal B.S. Dhanoa (Retd.) as Independent Non-Executive Directors



The Board of Directors (Board) of InterGlobe Aviation Limited (IndiGo) is delighted to announce the appointment of Mr. Vikram Singh Mehta and Air Chief Marshal B. S. Dhanoa (Retd.) as the Independent Non-Executive Directors, subject to receipt of security clearance from the Ministry of Civil Aviation (MoCA) and approval of the Members of the Company.

Mr. Vikram Singh Mehta will be appointed as an Independent Non-Executive Director in the vacancy caused by the second term of Dr. Anupam Khanna having come to an end on March 26, 2022. The appointment of Mr. Mehta will be effective from the date of receipt of security clearance from the MoCA.

Air Chief Marshal B. S. Dhanoa (Retd.) will be appointed as an Independent Non-Executive Director in the vacancy which will arise on Mr. Meleveetil Damodaran stepping down as an Independent Director on attaining the age of 75 years on May 3, 2022. The appointment of ACM Dhanoa as an Independent Director will be effective from the date of receipt of security clearance from the MoCA or May 4, 2022, whichever is later.

Reacting to his proposed appointment, Mr. Vikram Singh Mehta said, "I am delighted and honored to be invited to join the Board of InterGlobe Aviation Limited. I have for long admired the success of its low-cost, courteous, efficient and on-time offering from the outside. I now look forward to seeing it cross new frontiers, from the inside."

Reacting to his proposed appointment, ACM B. S. Dhanoa (Retd.) said, "Delighted to be on the immensely talented Board of IndiGo, the market leader in civil aviation of our country with an inherent belief in performance and safety, values I cherished the most during my service in the IAF."

Mr. M. Damodaran, Chairman of the Board of Directors of the Company said "InterGlobe Aviation Limited (IndiGo) is privileged to welcome Mr. Vikram Singh Mehta and Air Chief Marshal (Retd.) B. S. Dhanoa as Independent Directors on its Board. Vikram brings to the table his varied and rich experience in the Boardrooms of several leading companies as well as his admirable clarity of thought and expression. ACM Dhanoa's meticulous attention to detail without ever missing the big picture, and his enviable leadership qualities derived from a phenomenal understanding of men and machines will serve IndiGo very well especially in increasingly competitive times."

Mr. Ronojoy Dutta, Whole Time Director & CEO of IndiGo added, "All of us at IndiGo are absolutely thrilled to have two such distinguished personalities join our Board. Mr. Mehta brings years of experience running major corporations and a wealth of knowledge from working on some of the leading Boards in India. We will gain immensely from Air Chief Marshal Dhanoa's exemplary leadership and crisis management skills. We look forward to the guidance and counsel of these two very special people."

Ludovic Dumont has taken over as Head of MBDA India



It is time for change of guard at MBDA's Indian leadership. India will miss Boris Solomiac's presence who is all set to return to France on an upper echelon assignment and the vacant spot is being filled by Ludovic Dumont, who is neither new to the Indian defence set up nor to India. He is remembered as the smiling faced Defence Attache at the French Embassy in India. After hanging the uniform he joined MBDA recently. Ludovic served in the French Air Force for 33 years as a helicopter pilot and retired as a Group Captain this year.

During his career in the Air Force, he served in many operational and staff appointments ranging from Search and Rescue duties to Joint Special Operations Command before assuming higher responsibilities in various Headquarters. He has been posted on various

International Relations assignments, including as a Defence Attaché in the Embassy of France in New Delhi from 2018 to 2021.

He is an alumni of National Defence College (India), 57th Course, with a Master of Philosophy from Madras University. Ludovic is a highly decorated officer and has been awarded with various gallantry medals, including Officer of "Légion d'Honneur", Officer of "Ordre National du Mérite" and Cross for Military Valour for gallantry in combat, one with Corps distinction, and one with Brigade distinction. He has a private pilot's aircraft license, has been a Flight instructor on various type of aircraft, totaling over 4,500 flying hours, which included 156 combat missions. Ludovic is married to Anne, a sports teacher and Hotel & Spa consultant.

They have five children, working in France.

MBDA has been actively working in partnership with India's government and industry to build India's defence industrial capabilities for over 50 years. Over this time, many tens of thousands of MBDA designed missiles have been built in India and it continues to deepen and deliver on new programmes. Their full range of missiles and missile systems portfolio, the main defence domains air, land and sea are such as; Meteor, ASRAAM, Sea Ceptor, Exocet, MARTE, MMP and Mistral are all on the platter for Indian Defence Forces. MBDA's joint venture with Larsen and Toubro – L&T MBDA Missile Systems Limited (L&TMMSL) is offering a new anti-tank guided missile. A true successor to the highly successful MILAN.



Aviakul Private Limited [Aviakul] in collaboration with National Institute of Technology Delhi organized the 1st International Conference on Emerging Trends in Aviation MRO Industry on 22nd April 2022 from 11:00 AM to 4:30 PM at the Main Auditorium of NIT Delhi Campus in New Delhi. The event was supported by MRO Association of India (Knowledge Partner), Aviation World (Media Partner), Aeronautical Society of India (Mumbai), Indian Women Pilots' Association, Bridge Bharat, and The Delhi Flying Club.

The Opening ceremony was initiated by Lighting of Lamp. Shri Vaibhav Varun, Managing Director, Aviakul Private Limited delivered the Inaugural Address. Prof. (Dr.) Ajay K Sharma, Director, National Institute of Technology Delhi delivered the Presidential Address. Dr. Harpreet A de Singh, President

of Indian Women Pilots' Association presided over the Opening Ceremony and delivered the Welcome address. Prof. (Dr.) Mona Gulati Puri, CEO, United Group of Institutions delivered the Opening Remarks.

Conference kicked off with a Keynote address by Dr. Harpreet A de Singh addressing Women empowerment in MRO Industry. Topics such as Implementation of cutting-edge technologies in MRO Industry, Convergence of Civil and Military applications in MRO and preparing the future workforce for MRO were discussed. Eminent Industry Experts from Civil and Defense industries were present at the event. Prominent Speakers such as Air Marshal Sukchain Singh, (Retd.), Rear Admiral V. M. Doss (Retd.), Colonel K. V. Kuber (Retd.), from Defence, Shri. Bharat Malkani, Shri. Rohit Tomar, Shri. Gurmukh

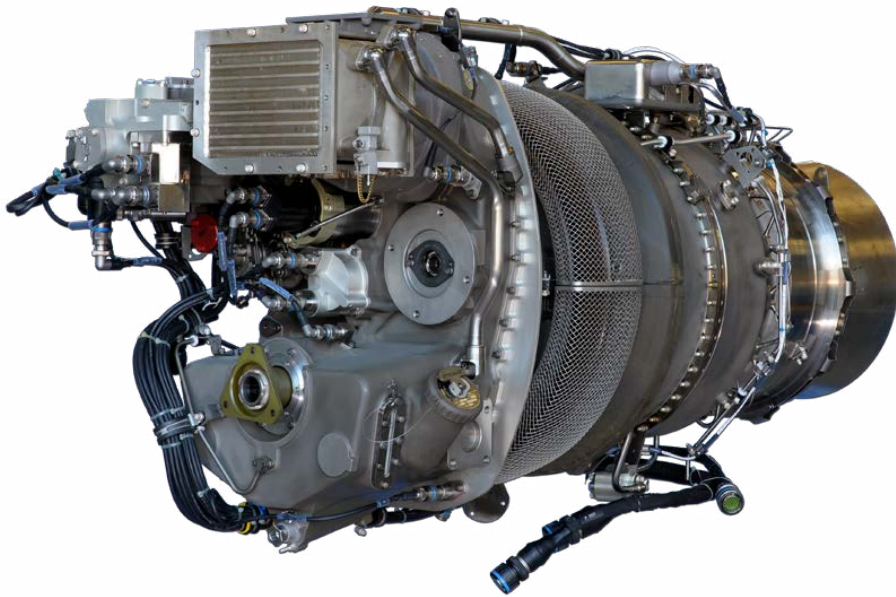
Singh Bawa, Shri. Ashwani Acharya, Shri. Aman Johri, Dr. Kanta Prasad Sharma, Shri. Bala Rajendran from Civil has graced this event with their lectures.

The event was attended by 400+ participants in both Physical and Online mode, comprising of Industry Experts, Defence veterans, Diplomats, Bureaucrats, Aviation Professionals, Aviation Enthusiasts, Friends from Media, Cinema Industry, Faculty and Students from Science and Technology background. This conference was well received among the participants making this event a Success.

2nd International Conference on Emerging Trends in Aviation MRO Industry will be organized on 21 January 2023 in New Delhi, India.

Aviation Update Editor Kartikeya In conversation with
Mr. Jetendra Gavankar
Managing Director - Safran HE India





What are Safran Helicopter Engines India (SHEI) areas of interest in India at the moment and what opportunities do you see in the near future?

Safran Helicopter Engine India's main focus is to extend meaningful support to our primary customer i.e Indian MoD and HAL, in: -

- Sustaining aeroengine production for the military helicopters by supply of requisite spares and kits.
- Providing technical and field support for HAL's MRO activities, so that the operations of our end-users from Indian Armed Forces are unhindered.
- Providing engineering and design support for prototype engines, being integrated into their helicopters under development and certification.

SafranHE India wishes to develop and foster a robust network and supply chain in India with key institutions and players in the industry to enhance the indigenous content in our products.

We are also continually exploring new opportunities in India, not only in the military domain but also in the civil aviation sector in order to support helicopter sales campaigns in India.

How do you see SafranHE's partnerships in India?

SafranHE has always believed in creating

and maintain enduring and trustworthy partnerships worldwide with our collaborators and customers. Our policy on partnership is no different in India. SafranHE has had a manifest Indian presence for over six decades and has been in a long-lasting partnership with HAL on several important military helicopter programs. Indian Defence and SafranHE share a rich history of partnering on several critical programmes like the Cheetah, Cheetal, ALH, LCH and LUH. SafranHE takes pride in its contribution to the Indian Aerospace industry through continual transfer of aeroengine technologies and associated activities to India. A recent milestone crossed has been the launching of a new Helicopter Engine MRO (HE-MRO) Joint Venture in March 2022 in Goa between SafranHE and HAL for providing world class MRO services for engines running on HAL-built helicopters and also stimulating employment in the region. We foresee further opportunity of strengthening our partnership on Indian Multirole Helicopter Programme.

Did the pandemic affect your ongoing programmes in India? What has been the progress on those?

It is common knowledge that the pandemic has adversely affected the aviation sector worldwide. SafranHE has systematically foreseen and tackled the challenges faced on various fronts viz. manufacturing, sourcing of raw materials, outsourcing of services, supply chain, distribution of products, on-time deliveries etc. The main concern has been to address the challenge

for the human resource. The efforts have always been focused on absorbing the losses on our side and minimising the impact for our customers and collaborators. As far as ongoing programmes in India are concerned, there has been a negligible impact. We have been able to maintain deliveries and supplies as per schedule and continued to render remote support for engineering and design activities, so that the defence sector operations are smoothly sustained.

What is happening at SafranHE on innovation and digital transformation?

Innovation has been the hallmark of Safran Group. Safran has been named as one of the 100 most innovative groups in the world, according to 2022 ranking, published by Clarivate Analytics. Having obtained 2nd place in the French patent applications ranking for 2021, this "Global Innovators™" cements Safran's status as a world leader in intellectual property and innovation. To respond to markets evolution and today's and tomorrow's challenges, the Safran Group is inventing key technological solutions and is committed to major research and development programs. The Digital Transformation is based on three cornerstones: -

- Rolling out the latest digital technologies, such as augmented reality, virtual reality, remote assistance tools, artificial intelligence, the IT techniques of data acquisition and utilization, etc.
- Implementing activities that will serve as foundations and ensure a sustainable maintenance of the solutions developed and the rollout within the group.
- Projects that transform our working methods and improve our efficiency.

To constantly increase its innovation capacity, Safran gives pride of place to the sharing of know-how. Safran Group promotes "Interaprenueres" and supports "participative innovation". These have now become integral part of Safran culture, as well as an essential component of the company's competitiveness.

A new driver of efficiency and digital transformation is RPA (Robotic Process Automation), which uses software robots to automate the repetitive tasks has been a focus area for us. The software robot

performs the tasks just as a human would. Many sectors can benefit from RPA, such as Human Resources, Finance, Purchasing, Supply Chain, and even Support and Services activities, where real productivity gains have already been achieved. RPA thus delivers a genuine competitive boost to corporate digital transformation.

With increased emphasis on indigenisation and Prime Minister Modi's call for 'Atmanirbhar' Bharat how can SHEI engage more closely with Indian companies, both in the public and private sector?

We at Safran have been doing the Make In India for decades now. Our joint engine program with HAL - "Shakti" is a testimony to that. SafranHE is very closely engaged with several Indian companies both in public and private sector. The indigenous content on the Indian soil of SafranHE's partnerships encompasses transfers of industrialization and production to HAL and Indian industrial players. This local content continues to grow with the setting up of a brand new joint venture and helicopter engine MRO, a green field facility in Goa, which will complement the MRO capabilities of HAL by harnessing the combined state-of-the-art competencies of the two partners. We are also keen to partner in the recently announced IMRH and DBMRH projects and are particularly interested in supporting India and HAL in this new development. As you are aware, IMRH is one of the 18 major platforms to have been identified by the Indian Ministry of Defence for industry led Design & Development under various routes, wherein private industry will be encouraged to take up design and development of military platforms and equipment.

Given the growing awareness about environment, what measures has SHE taken to ensure cleaner and safer engines?

Bio jet fuel is emerging as one of the alternative to conventional aviation fuel for the reduction of emissions. Indian Army Aviation (IAA) and Indian Air Force (IAF) have expressed the need to be prepared for the effective use of alternate fuel as a way for sustainable future. In fact, IAA and IAF have requested HAL to examine the feasibility of utilising ATF blended with Bio-fuel (25%) on TM333 2B2 and Shakti 1H1

engines of ALH fleet. We will be working closely with HAL on this.

TECH800 turboshaft demonstrator had been developed by SafranHE (then Turbomeca) way back in 2013 in cooperation with 34 partners from ten European countries to deliver reduced emissions in-line with the goals of the Clean Sky programme. An innovative core engine demonstrator had been designed, manufactured and tested for future helicopter turboshaft applications in the 800kW power class. This demonstrator offered a double digit benefit in terms of fuel consumption and CO2 emissions compared to the year 2000 state of the art, as well as breakthrough in noise attenuation, weight and control system (fuel pumps, electric actuators...).

In June 2021, for the first time, an Airbus H145 operated by the German company Adac Luftrettung (helicopter rescue), powered by Arriel engines (Safran Helicopter Engines), flew over Munich on kerosene containing 40% biofuel. All our engines are already certified to run on 50 percent SAF, including biofuel. Our goal is now to reach a 100% incorporation level in the next few years. The obstacle is not the technology; the problem is price and availability.

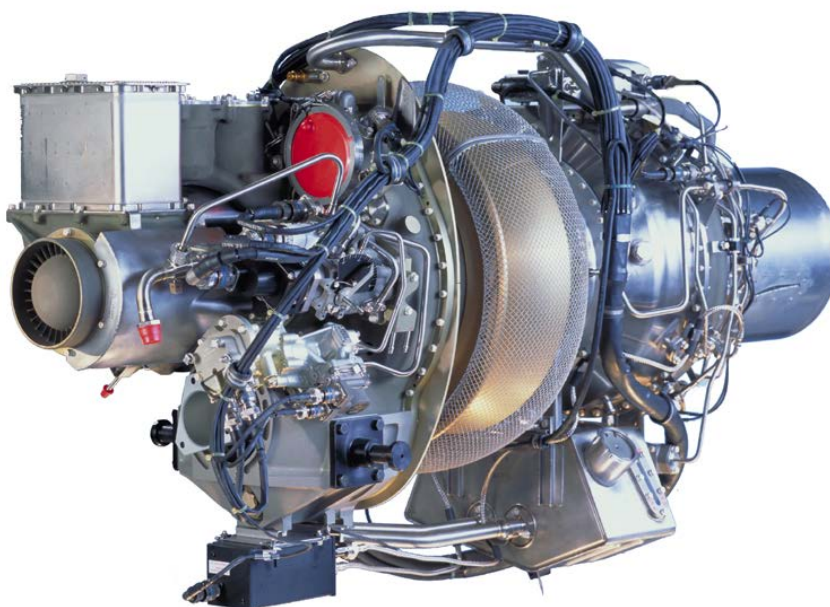
What kind of engagement do you have with HAL & Indian Armed Forces with regards to aero engines?

SafranHE has been present in India since

the 1960s. All along, we have been a reliable and dependable partner to India and HAL.

The partnership started in 1962 with a cooperation agreement (licence) on the Artouste engine for the Cheetah helicopter. After 1998, France and SafranHE have stood by the side of India and HAL. This led in 2001 to a development and cooperation agreement (support licence) for the TM 333 helicopter engine, which was followed in 2003 by the joint development of the brand new Shakti / Ardiden 1 program to power HAL's Dhruv and the forthcoming LCH and LUH for the Indian Armed Forces and the Indian Coast Guard. We are interested in also involving in the Naval Utility Helicopter apart from the IMRH & DBMRH programmes in the foreseeable future.

In order to support the armed forces and aligned to the Atmanirbhar Bharat needs we are setting up the engine MRO facility in Goa. This would help the three services achieve better operational preparedness. Our team would be available on site for resolving all technical issues resulting in lower downtime and lesser return to shop events. The overhaul of engines will also be faster. Armed Forces representatives who were present for the "Ground Breaking Ceremony" of the MRO factory were very appreciative of our joint initiative.



HAL & AASSC Skill Conclave-2022



The Skill Conclave- 2022 was jointly hosted by Hindustan Aeronautics Limited & Aerospace and Aviation Sector Skill Council (AASSC) on 20-04-2022 at the Auditorium, HAL Management Academy New Campus, Doddanekkundi, Bengaluru.

A significant feature of the skill conclave was the awards ceremony to the HAL divisions for various skill categories and the award of certificates under PMKVY - Recognition of Prior Learning (RPL). Skill Awards in various categories related to 'Training within Industry', 'Mission Prakshalan', 'Inter-Divisional Skill Awards. The RPL Certificates were presented to the different Divisions of HAL, Dynamic Technologies Aerospace and AI-SATS for their recognition and participation in the RPL type 4 / Best in Class Category project.

The Chief Guest, Dr K Sivan, former Chairman ISRO while presenting skill awards

to various Divisions of HAL called upon HAL and AASSC to venture into new areas, apart from Aerospace as upgradation of skills is needed to achieve indigenisation goals in different sectors in India. Many eminent personalities and Industry Leaders from Aerospace & Aviation Sector attended the event. The event highlighted the contribution of HAL and AASSC towards the Skill India Mission in making India 'Atmanirbhar'.

Another significant feature of the skill conclave were the three panel discussions. The Panel Discussions were – 'How India can be a Global Skills Hub in Aerospace Technology', 'Post Covid Rebound in Indian Aviation: Carving Skills for Future', 'Talent Resource Challenges in Drone Technology & Bridging Gap through Skill India'. The event was well attended with more than 400 participants from HAL, AASSC and Industry Leaders.

The panel discussion on Aerospace was moderated by Mr. P S Ramesh, ED, Dynamics

Technologies with the panelists being Shri M S Velpari, Ex. Director - Operations HAL, Mr. K K Gupta - Head - Technical & Skill Development, TATA Advanced Systems Ltd, Mr. Suraj Chettri, Head HR, Airbus and Wg., Cdr., Rachit Bhatnagar , CEO, AASSC.

The second panel discussion on Aviation was moderated by Ms. Parul Kulshreshta, Chief, GMR Aviation Academy with the panelists being Ms. Piyalee Chatterjee, Product Head at Fledge Institute of Aviation and Hospitality, Mr. Rajiv B N, VP-HR, Menzies Aviation Bobba Pvt. Ltd, Mr. Bhargava Ramana, CEO, Maruthsakha Aerospace and Mr. Vishwanath Hampanna, VP - Training, Acumen Aviation.

The last panel discussion on Drones was moderated by MS Divya Manchanda,



Operations Lead, The ePlane Company while the panelists were Mr. Smit Shah, President, Drone Federation of India, Mr. Nagendran Kandasamy, Founder & CEO, Throttle Aerospace and Dr. Sumeet Suseelan, Chairman, ASSOCHAM, Jharkhand – SSDC.

The following are the excerpts from the three panel discussions.

1. The panellists felt that the aerospace industry will be dominating the scene in the coming decades. India should not be found left out. Serious actions should be taken from industries, BCIC, AASSC working together. Support from the Government is essential.
2. India is one of the fastest growing aviation market. It is expected to become the world's third largest aviation market by 2024, with the new airlines entering the competition there would be a demand for "skilled" manpower. There have been a lot of initiatives which has been put forward by the government and private sector but still more work needs to be done. With continuous focus on skilling, upskilling and reskilling the sector, we would be able to develop a good

ecosystem.

The panel discussion emphasized on the importance of skilling the various candidates in the Aviation Sector. As mentioned, every job created in the air transport industry triggers an additional 6 jobs in other industries and with India poised to overtake China and United States as the world's third largest air passenger market the task is going to get tougher. The need of the hour is the right "training" with good delivery. The content should be well updated in-line with the current technology, processes and policies.

Key areas of focus would:

- Digital learning- reaching out to more candidates to ensure quality learning in the field of Aviation.
- Mentoring/ coaching- An important activity to groom future leaders.
- Areas of growth- MROs, drone technology and Cargo/ logistics.

India needs to develop in-house talents to be "Atmanirbhar Bharat". This will help us overcome our dependency on other countries in-terms of training,

research and development. We need supportive policies to create various Centre of Excellence (CoE).

3. Taking another step towards realising the collective vision of an "Atmanirbhar Bharat", the Government, has approved the Production-Linked Incentive (PLI) scheme for drones and drone components. INR 120 Crore has been allocated to the Drones sector under scheme over the three years.

Drones offer tremendous benefits to almost all sectors of the economy. These include- agriculture, mining, infrastructure, surveillance, emergency response, transportation, geo-spatial mapping, defence, and law enforcement to name a few. Drones will be significant creators of employment and economic growth due to their reach, versatility, and ease of use in the country

Given the country's strength in innovation, information technology, frugal engineering and domestic demand, India has the potential of becoming a **global drone hub by 2030**.

Satcom Direct Plane Simple Antenna System Takes Off



Satcom Direct, the business aviation solutions provider, is celebrating Federal Aviation Association, (FAA) approval of Supplemental Type Certificates, (STCs) for the Satcom Direct Plane Simple Ku-band tail-mounted Antenna System. Following a multi-model, (AML) STC approval, Gulfstream G550, G450, GV and GIV types can now be equipped with the advanced technology terminal.

The Satcom Direct Gulfstream G550 is the first aircraft carrying the equipment, demonstrating the power, versatility and simplicity of the Plane Simple advanced antenna technology, which is powered by

the Intelsat FlexExec satellite network. The minimally invasive antenna installation, which required the fitting of just two-line replaceable units, the tail-mounted antenna and the SD modem unit, was carried out by Gulfstream at its Appleton, WI facility.

In parallel the European Aviation Safety Agency, (EASA) has released an STC for multiple Bombardier types, covering Global 6000, 5000, Express XRS and Express. SD collaborated with Alamo Engineering GmbH to generate the first EASA STC for the Global airframes. A privately owned Bombardier Global Express is the first aircraft equipped with the Plane Simple Ku-band terminal outside of the US, with equipment installation completed by ACC Columbia Jet Service at its Hannover, Germany, MRO facility.

“This is a monumental day for Satcom Direct demonstrating we have taken our initial concept of a simplified connectivity hardware system, that can be easily installed, maintained and transitioned, and made it a reality,” said SD Founder and CEO, Jim Jensen. “We announced we would do it just over two years ago and, we have stuck to our plan as SD Avionics, our expert hardware team, worked with our production partner QEST, to create a whole new class of antenna hardware. It completes our connectivity puzzle adding to our existing software, ground infrastructure and hardware. More importantly it gives our customers greater flexibility, cost effective connectivity options, and a single resource to fulfill each and every connectivity need. It is what they were asking for and we have delivered it, I could not be prouder.”

The revolutionary antennas will form part of the in-service evaluation program which delivers additional feedback about system performance, further confirming that together, the high throughput Intelsat FlexExec satellite network, combined with the Plane Simple Ku-band tail-mounted antenna system, simplifies high-speed data access for more business aviation owners globally. Multiple units are currently being delivered by SD Avionics to customers who will join the in-service evaluation program.

“Until now high-speed connectivity options were limited by capacity, restrictive plans, invasive installation, and the complexity of transition pathways. With the Plane Simple tail-mounted antenna these needs are resolved in one simple step. We’re excited and extremely pleased to have worked with SD and ACC Columbia Jet Service to generate the first European STCs for this impressive new technology,” said Alamo Engineering’s co-owner and Head of Design and Airworthiness, Jörg Gorkenent.

Designed exclusively for business aviation aircraft the Plane Simple terminal and Intelsat FlexExec network deliver consistently reliable high-speed data access for government, corporate and private customers. The initial swathe of STCs, which increases access to the powerful Ku-band offering for international customers, will be followed by further approvals from the FAA, Transport Canada, and EASA for more airframe models by the end of Q2, 2022. The official approvals and customer in-service evaluations represent the penultimate phase before the revolutionary SD Plane Simple Antenna System enters commercial service in Q3 of this year.

Gulfstream delivers first G600 outfitted at Dallas facility

Gulfstream announced the delivery of the first Gulfstream G600 to be outfitted at its Dallas, Texas, facility. In response to growing demand, Gulfstream expanded completions operations to the Dallas facility in June 2021 to enhance interior outfitting capabilities for customers.

“We are seeing tremendous demand for our next-generation aircraft,” said Mark Burns, president, Gulfstream. “Expanding G600

completions to Dallas is positioning us well for the future as we prepare for G700 entry into service, continued G500 and G600 in-service fleet growth and the interest we are seeing in the recently announced G400 and G800.”

The G600 can be configured in four living areas for up to 19 passengers or three living areas with a crew compartment for up to 13 passengers, and customers can also choose from a forward or aft galley configuration. The interior features award-winning seat designs, best-in-class cabin altitude, 100% fresh purified air, whisper-quiet noise levels and 14 Gulfstream panoramic oval windows,

the largest in the industry. As with all Gulfstream aircraft, each cabin is custom-made by Gulfstream artisans who handcraft the cabinetry, furnishings and finishes.

“Our award-winning bespoke interiors and the individuals who create and install them are the best in the business. In fact, we have received direct feedback from this newest G600 customer citing an ‘outstanding’ experience, and I’m excited for our customers to experience the unparalleled quality and excellence produced by the world-class team at our Dallas facility,” said Burns.

Vista to acquire Jet Edge



The latest deal follows Vista's acquisition of European charter operator, maintenance and FBO company Air Hamburg at the start of last month. Dubai-based Vista has now made seven acquisitions in the business aviation sector since it was founded in 2018.

Charter company Jet Edge runs the largest fleet of Challenger and Gulfstream aircraft in the USA and recently received a US\$40 million investment from private equity group KKR.

Thomas Flohr, Vista's founder and chairman said, "Vista's commitment is to provide the most comprehensive range of flying solutions in private aviation. Today's announcement brings significant value to our clients, with access to a further 100 aircraft, expanding our fleet at a time of unprecedented demand for business aviation services.

"Our vision is to provide the best services, anytime and anywhere, for every customer. Bringing Jet Edge, the fastest-growing large-cabin and super-mid on demand company in the USA into the Group will expand our presence in North America, giving Vista the opportunity to turbocharge growth in the most dynamic business aviation market."

Jet Edge's CEO Bill Papariella is to join Vista's executive team as chief business officer as part of the deal. He said: "Vista is, without a doubt, the best operational platform in private aviation, and it aligns with our company's promise of safe operational service and a superior flight

experience.

"Our Members will now get access to an extensive global fleet, programs, services and a network able to fly them anywhere in the world. Our aircraft owners will be able to take advantage of the enormous charter demand, global infrastructure and procurement advantages that Vista generates via its iconic brands VistaJet and XO."

Vista said that the merger is an important step in its growth within the "highly fragmented business aviation ecosystem". As part of the deal two branded lounges in Van Nuys and Teterboro join Jet Edge's portfolio, as does Jet Edge's Part 145 maintenance facility on the West Coast.

In accord with US Department Of Transport requirements, Vista will acquire Jet Edge aircraft, hospitality and maintenance facilities, while its US. strategic operating partner XOJET Aviation will acquire a majority stake of the Part 135 certificates of Jet Select and Western Air Charter.

Daher launches the TBM 960 very fast turboprop aircraft with digital power



Daher recently took the wraps off its latest-generation TBM turboprop single—the TBM 960—at the Sun 'n Fun Aerospace Expo in Lakeland, Florida, where it also displayed the first production example. Replacing the TBM 940 in the company's lineup, the approximately \$4.57 million aircraft sports a more efficient Pratt & Whitney Canada PT6E-66XT engine with a five-blade composite propeller and digital e-throttle.

With the new aircraft's launch, Daher's TBM family is now offered in two versions—the TBM 910 and 960. Daher said European certification of the 960 is already in hand, while FAA approval in the U.S. is pending. Deliveries of the model are expected to begin by July.

An optional Prestige cabin package ups the price to about \$4.8 million and adds a new environmental control system (ECS), LED ambient lighting, and electronically dimmable windows. This premium cabin also includes a passenger comfort display for control of the ECS, LED lights, dimmable windows, and other enhancements such as new ergonomically enhanced seats, USB-A and USB-C power plugs, cupholders, and headset hangers at each of the airplane's six seats.

"The TBM 960 is the quintessential TBM, representing the fifth evolution of our very fast turboprop aircraft family since the TBM 900-series' introduction in 2014," said Nicolas Chabbert, senior vice president of Daher's aircraft division. "It takes the maximum advantage of today's turboprop technology to provide digital control of the

engine and the propeller."

According to Daher, the PT6E-66XT's startup is fully automated after a single-switch activation. Further, the e-throttle power lever uses a single forward position from takeoff to landing, with the dual-channel digital engine and propeller electronic control system optimizing powerplant performance throughout the flight envelope, reducing pilot workload, and increasing the engine life.

Fully integrated into the propulsion system, the Hartzell Raptor five-blade propeller is designed to reduce overall weight and improve the TBM 960's takeoff distance, climb, and cruise speed, in addition to limiting noise and vibration. Its sound level during takeoff is 76.4 decibels, meeting stringent international noise standards.

Performance is roughly the same as for the TBM 940, including a 330-knot top speed at FL280 and a maximum range of 1,730 nautical miles at 252 knots. The Model 960 does have a 221-pound increase in maximum takeoff weight, to 7,615 pounds, to help offset the 140-pound heavier Prestige interior.

Diamond Aircraft signs agreement with Safran to provide electric motor for the all-electric eDA40



Diamond Aircraft, amongst the leading aircraft manufacturer in General Aviation, and Safran Electrical & Power, world leader in aircraft electrical systems, have just announced a cooperation agreement to equip the eDA40 all-electric training aircraft

with an ENGINEUSTM electric smart motor.

Safran Electrical & Power will supply the electric motor for the eDA40, a derivative of the existing and certified DA40 platform, which will be the first EASA/FAA Part 23 certified electric airplane with Direct Current (DC) fast charging – capable of turning around a depleted aircraft in under 20 minutes. Total flight time is expected to be up to 90 minutes as the battery technologies evolve. The eDA40 is expected to reduce operating costs by up to 40% compared to traditional piston aircraft.

The ENGINEUSTM product line includes a broad range of electric motors with power outputs from single digit to 500 kW. The ENGINEUSTM 100, that will equip the eDA40, delivers 130 kW maximum at take-off power and features a fully integrated motor controller within the machine. The thermal management is provided by an optimized air-cooling system. The certification of the electric motor is planned for mid-2023. Basic EASA certification for the eDA40 is expected with end of 2023/early 2024.

“The DA40 is a proven aircraft, arousing

worldwide interest among private pilots and professional flight training operators. Creating an electric version and participating in the electrification of this bestseller aircraft is not only a technical challenge, but it is also a response to the growing global demand to decarbonize aviation using electric propulsion. This new contract demonstrates the success of our ENGINEUSTM product line and confirms the strong interest of the market in our approach to further increase the electric powertrain performance”, said Thierry Sieg, Vice President of Sales & Marketing at Safran Electrical & Power.

“We are excited to announce the motor partner for the eDA40,” says Liqun (Frank) Zhang, CEO Diamond Aircraft Industries Austria. “With Safran we are having an expert partner for electric propulsion systems aboard. The smart motor’s state-of-the-art technology including smart features paired with a well-advanced certification process is the logic choice for our eDA40. We are looking forward to the first flights scheduled for end 2022.”

Textron Aviation announces order from flyExclusive for up to 30 Cessna Citation CJ3+ light jets

Textron Aviation announced it has entered into a purchase agreement with Exclusive Jets, LLC, operating as flyExclusive, for up to 30 Cessna Citation CJ3+ jets. flyExclusive, a leading provider of premium private jet charter experiences, expects to take delivery of five aircraft in 2023, with the option to purchase additional aircraft for deliveries through 2025.

“This order brings the efficiency and comfort of the Citation CJ3+ to a new audience of customers through flyExclusive’s programs,” said Ron Draper, President and CEO, Textron Aviation. “We appreciate

customers like flyExclusive, who see the value in operating a broad range of jets from the Citation family. The operating economics of Citations, combined with the global network of service and support available through Textron Aviation, ensures continued productivity and enjoyment throughout the ownership experience.”

This order, with options, continues the company’s position as one of the largest owners/operators of Citations in the world. The company operates a fleet of Cessna Citation jets including Citation X, Citation Sovereign, Citation Excel/ XLS, Citation CJ3 and Citation Encore aircraft models.

“This expansion launches flyExclusive into the fractional space. We are committed to redefining the private flying experience,

providing the full suite of products for our customers, all delivering consistent, reliable and world-class service,” said Jim Segrave, Chairman and Founder, flyExclusive. “We are proud to continue our relationship with Textron Aviation as we bring the CJ3+ into our esteemed fleet. The addition of these new CJ3+ aircraft will allow us to expand our capabilities to support our continuing growth as one of the largest private jet charter operators in the industry.”



IndiAirport

An International Expo & Conference on Airport Technology

22 23 24 NOVEMBER 2022

INDIA EXPO CENTRE MART, NOIDA, NCR, INDIA

Exclusive Show on
**Airport
Technology**
in India

- **Terminal & Traffic Operation & Management**
- **Airport Communication**
- **Airport Automation & Robotics**
- **Airport Interlogistics & AI**
- **Cargo & Baggage Handling**
- **Security & Surveillance Systems**
- **Green/Smart Airport Infrastructure**

INDIAIRPORT Exhibition to be organized on **Airport Technology**, Supported by **GATE – German Airport Technology & Equipment & Federal Ministry for Economic Affairs and Climate action of Germany**.

Radeecal Communications, India partnered with **IFW Expo Heidelberg GmbH, Germany** to organize **INDIAIRPORT Exhibition** as Pilot project at India Expo Center Mart, Noida, NCR, India during 22-24 November 2022. **GATE – German Airport Technology & Equipment & Federal Ministry for Economic Affairs and Climate action of Germany** announces their Supporting Partnership & Supporting authority respectively for the show. A formal announcement made from PHD Chamber of Commerce & Industry will join this initiative as Industry Partner.

After the impact of Covid Pandemic Civil Aviation, industry is looking to optimize and forcing itself to revive to pre-Covid numbers. Whereas **Government of India & PM launches Gati Shakti- National Master Plan** for infrastructure development in India with wide focus of developing and establishing domestic air connectivity via building new airport at revolutionary pace.

We aim **to support** the initiative of **Government of India and creating a platform**, IndiAirport as the first exclusive physical exhibition offering an ideal opportunity vide displaying of the latest technologies for the effective airport solutions and high quality services. The participants of the airport products, services and solutions to meet and engage with senior and middle management from **airports, airlines, government agencies, regulators, ground handlers, architects, engineers, consultancies, suppliers and the buyers will have an unparalleled access to all encompassing network opportunities**. This exhibition to witness around 200 exhibitors (National as well as International Private and Government Units/ Departments). These three days of Exhibition and Conference planned with the vision, **“Our government has the honor of bringing an aviation policy that is transforming the sector.” “Atma Nirbhar Bharat” and “Make In India”** in support of our Hon’ble Prime Minister- **Shri Narendra Modi**.

India is on the path to develop its greatest air connectivity since the independence, as per the Civil Aviation Minister Jyotiraditya Scindia, Indian Airport industry to attract 1 Trillion Rs. Of investment by Year 2024 and hoping the total passenger traffic to rise to 400 million by 2023-24. As per Civil Aviation Minister Jyotiraditya Scindia until 2014, only 74 airports were built in the country, following the new government in 2014 in next 7 years another 66 new airports were added to the list of **total 140 airports in the country**, which we resolve to take to 220 by 2025, he said.

Considering rising market for the companies related to airport development and contributors of airport technologies are highly encouraged to participate in the only, standalone show of the industry named **INDIAIRPORT** in the month of November 2022.

Organized By



Supporting Partner



Supported By



Industry Partner



Media Partner



The boy who dreamed to fly... Says “The biggest asset in the world is your mindset “ Wg Cdr Abhijit Gokhale (Abbee TheRebel)



When did you decide that you wanted to become a pilot? What contributed to this decision?

This has incidentally been the most repeated question over the last decade since the time I started speaking in public about my life. The dream to become a pilot is actually as old as my age. Sometimes I wonder whether it was just destined. The first birthday cake that was made for me was in the shape of an aeroplane. As a

child I was always attracted to the uniform, primarily because my grandfather on my father's side was in the police. As I grew, it continued to draw me towards the uniform and soon I was fascinated by it and the dream to be a soldier grew. Somewhere towards the end of the 70s, I saw the movie Vijeta, and that sowed the seed of the flying dream. I studied in Vadodara which had an Air Force base. A few of my parents' friends were from the IAF and the Army and so I got a chance to interact with

them first hand. The airport at Vadodara is a joint user airport and the IAF often flew in their fighters there. Seeing them fly convinced my young mind that I had to get into one of them. Around the same time, my school held a parasailing camp conducted by the Gujarat Skydiving Federation and I was lucky to do five jumps. That was the first time I felt the being independently airborne and looking at the ground beneath me as the parachute soared up and descended. I would therefore say that it was a combination of multiple factors that germinated the dream of an aviation career.

As you have very rich experience of 2+ Decades in the Air Force (IAF) & Commercial Aviation, what are your goals and future expectations?

Today, I do speak to a lot of Indians about aviation and a career in aviation, both civil and military. The aim is simple...to assist others in achieving their dream. I have always believed that if God gave you the power to dream, he gave you the power to make them come true.

One just needs to work towards it. And if unfortunately, the dream can't be fulfilled, one can always guide others towards what to do. I always quote what I had read a few years ago. "Always try till you succeed or fail. If you succeed, your story can be an example to follow and emulate. If you fail, you can teach others what you did not do correctly. It will be a lesson. Either way you will be a teacher and will benefit others". That today is my singular goal. To motivate



and convince others to chase their aviation dream and never give up. My expectations are many. I want to see aviation in India reach such a high that not only passengers, but all those who aspire for a career in aviation can feel that they can achieve their dreams. Today, it's an extremely expensive career. A candidate may need to spend up to one crore to become a pilot in an airline, and yet at the end of it, his job, career and future is at the mercy of operators. This needs to change. Not only passengers need to feel happy flying, but even those who work in aviation need to be happy doing what they do. This can happen ONLY if pilots, engineers, ground staff such as security & commercial, those who do difficult tasks such as cleaning, loading and unloading, moving machinery, vehicles and equipment all considered equal stakeholders and are given a sense of being wanted by the industry. There is also a huge amount of disinformation. The youth are attracted by companies with attractive salaries, lifestyle, opportunity to travel the world etc, but it's only after they spend lakhs, that they realize that all this is quite divorced from reality and facts. I am not saying that this occurs only in aviation. It happens in a lot of other fields too. In aviation, it's quite rampant and the costs

enormous.

What is the most rewarding with your job?

Today I fly a passenger aircraft. Every time I see passengers walking down the aerobridge to the aircraft, or climb up the step ladder, I always find a few looking at the cockpit and the pilot. I always tell myself that the passenger must be looking at me and saying to himself that "this is the idiot who will be taking me home safely". Imagine the enormous trust and responsibility each one of them is putting in the hands of the pilots? They may be on vacation, business, going for functions & weddings, maybe even to meet some sick relative or attend an emergency. The satisfaction of taking them to their destination is what keeps me going. I also try and always carry out my passenger announcement from the passengers' point of view and never stick to the fixed script. The

method is simple. I always try and give information which I as a passenger would want. So apart from flight details and some mandatory legal and safety aspects, I always try and add some information about the destination, food, places to visit etc. I have

been lucky to be posted in so many places in my service career that I have the benefit of local knowledge of many destinations. Since the pandemic, I realized that a large number of rural passengers do not understand English. Hence, I started to use Hindi, Gujarati and Marathi too. Every once in a while, some kind passenger sends in a note of appreciation for the announcements and that adds more adrenaline for the next few flights.

What do you consider to be important for a professional pilot?

To put it simple PASSION. Passion to do what you are doing and the love of flying. Never take it as just another job. The day you feel that, it's time for a change of company or operator. Aviation is inherently risky. If God wanted man to fly, he would have given him wings to do so. The fact that human beings don't have wings tells us that flying is inherently against the law of nature. It is therefore essential and paramount that aviators never take flying for granted. Even the most sophisticated, modern and advanced aeroplane is after all a machine. There has been no machine made that cannot fail. Hence a pilot needs to understand that. To be able to fly with happiness, perseverance, hard work,

dedication and much more is intrinsic. Aviators are examined once every year for knowledge in the form of written exams and twice practically in simulators. Pass marks are high and so the effort required is huge. Unless you have the passion and love flying, all these can take a toll on you.

Anything else you would like to comment on the aviation sector potential and growth in the country?

I am too small a piece in the huge jigsaw to comment on the future with certainty. There are however certain indicators that point towards a huge growth in the aviation sector. The Govt schemes such as UDAN have brought air travel within every Indian's reach. The huge boost to tier II and tier III cities with new airports as well as connectivity to remote locations definitely augurs well for this sector. However, challenges such as the pandemic and ATF fuel prices are major speed breakers in the growth and progress. I always tend to look at the positives. During the pandemic when international air travel was banned all over the world, airlines in India continued to operate domestically. Countries in SE Asia, Europe or the middle east are much smaller in size than India. Consider this, I used to fly Mumbai Guwahati which would take between 3-3.5 hours. In Europe, SE Asia or Middle East this would amount to flying across nations. Hence, despite the ban on international travel, air travel in India could grow. There are still parts of India not connected by air travel. If these get airports, there is no limit to the growth of air traffic within India itself.

What would you say are the main opportunities and challenges for pilots in India?

Pilots in India have one of the greatest challenges compared to many nations. The first is the cost of training especially with an uncertain future of jobs. The cost of training is much higher than the rest of the world. As a result, often the youth travel to foreign nations misguided by agents who never apprise them of the threats and risks. Very often, pilots return to India with foreign licences and are unable to pass the DGCA exams. The delay in passing the exams leads to lapse of flying hours and the pilot then needs to spend more to

get the currency of flying. This is a vicious circle. In addition, the process in India is not user friendly. The process of acquiring a flying licence is not transparent and time bound. It depends a lot on the assessment of different individuals who interpret the rules and procedures differently. Let me give you a personal example. In November I had applied for two different certifications on my flying licence, one was for renewal of my licence and the other for an endorsement of a qualification. Both were experience based and just needed certain number of flying hours in the preceding period. One of the regional centers approved the flying hours certified by my operator and renewed the licence, while another office rejected the SAME FLYING HOURS for a lesser qualification. This, when the rejected application was made before the approved renewal. The office took more than six months to reject the application. Such differential assessment is one of the primary drawbacks affecting flying licences today. It can take a candidate more than three months to just get an endorsement on his licence that should not take more than 15 days. Imagine a candidate losing out on 3-4 months of the validity of his flying test out of one year just because the licence is pending for endorsement. The candidate does not need to spend even more to renew the licence. There is an urgent need to overhaul this entire process or else the growth of aviation in India will always be adversely affected. I have just given two examples of pilots. Imagine if we consider Engineers, cabin crew, operators and many more certifications!

What is that one fascinating thing you like in today's aviation industry? One thing that you equally hate or disapprove of?

I have always been fascinated by the number of Indians who want to make a career in aviation. This is despite the huge initial investment as well as the uncertainty of returns on precious savings. There are some amazing stories from rural India of children of farmers, rickshaw pullers etc who have succeeded in aviation. This has always told me that dreams can come true. What also fascinates me is the growth of private aircraft in India. The number of self-owned or private business owned

aircraft in India is burgeoning. This augurs well for the aviation industry in terms of jobs and opportunities. But there are huge challenges too. The lack of correct and accurate information is a huge threat. A major overhaul of the regulator in terms of licencing, induction of experienced professionals from the aviation field as well as a major emphasis on transparency and flight safety is urgently needed.

What advice would you give someone (young Pilots) who is considering a career in aviation?

The steps to a career as a pilot are expensive and need a huge amount of study and research. The basic ones can be simply listed as under. However, it is essential that every candidate research the existing rules in detail before spending the first rupee. It's easy to get misguided.

- (a) It starts with your class XII where Physics and Maths are mandatory
- (b) Research and find correct & accurate information.
- (c) Don't look for agents. An agent is always looking for his commission.
- (d) Go through the regulatory process and the steps needed to get a licence
- (e) Get your medicals done before flying, especially abroad. The standards are different. There have been quite a few cases of pilots returning from abroad and not clearing the medicals in India leading to wastage of money
- (f) Pass your DGCA and RTR exams before starting flying. The validity of the results is five years. You will finish flying in less than two years and if exams have been passed, you will get your licence. If you fly first, and then don't clear the exams, you will need to spend again on flying as validity of flying hours starts lapsing faster and you need a minimum number of hours within the last six months.
- (g) Choose the flying club and the aircraft wisely. Insist on a specific time frame for completion of flying. Also, choose an aircraft that would be available should you need to fly again for renewal of the licence or instrument rating etc

Thales Alenia Space and Aiko team up to Develop Advanced Software for Space Applications



Thales Alenia Space, the joint venture between Thales (67%) and Leonardo (33%), and the start-up AIKO S.r.l. signed a Memorandum of Understanding (MoU) to

jointly develop advanced software for space systems.

Their partnership will primarily study the use of artificial intelligence (AI) and machine learning technologies to enhance the autonomous operation of satellites and space infrastructures, working in conjunction with the companies' research and engineering teams. With the data generated by space systems increasing exponentially and space missions becoming more and more complex, advanced software solutions that can maximize the chances of mission success have become fundamental. AI technologies can address these needs, providing scalability and robustness in the harsh space environment. Thales Alenia Space and AIKO will capitalize on their decades of experience in the software and space sectors to support the next generation of space missions.

"Thales Alenia Space acts as a catalyst in the space ecosystem by tackling the challenges of an emerging economy

in which space is becoming one of the foundations," said Massimo Claudio Comparini, Senior Executive Vice President Observation, Exploration and Navigation at Thales Alenia Space. "We have confirmed our pivotal position in the space industry and we are very proud of our partnerships, such as this latest one with AIKO. By using AI to enhance autonomous monitoring, detection, processing and data transfer capabilities on spacecraft, we are shaping new mission paradigms in space exploration."

"This MoU is a major step forward for our company," added Lorenzo Feruglio, CEO of AIKO, "since it signals the application of AI to more complex, ambitious missions. Thales Alenia Space has a proven track record in these missions and we are delighted to be working with them. Furthermore, our partnership paves the way for missions that will address end-users' evolving needs in terms of data volumes and information timeliness."

BAE Systems to develop mission data framework for Space Systems Command



BAE Systems will develop the mission data framework for Space Systems Command's Enterprise Management and Control (EM&C) system. Under the prototype contract, BAE Systems will create an integrated data management environment, connecting interoperable sources to support fusion and discovery of data, minimize disruptions, deliver near real-time status of assets, and provide curated data for mission needs.

During a year-long development period, BAE Systems will perform four demonstrations. The demonstrations will show improved situational awareness for global satellite communications, or SATCOM, and underscore how the framework allows warfighters to rapidly respond to end users in contested, degraded, and operationally challenged environments.

"Our team is ready to provide the flexible data architecture and foundation required to build a resilient, responsive, and integrated SATCOM data environment," said Ron Zuccaro, Director of Resilient Ground Systems at BAE Systems. "Our cyber-resilient ground systems automate decision-making and integrate intelligence data from disparate sources."

BAE Systems' cloud computing suite integrates data sources and applications into a platform in which information flows through data services that act as the working memory of the EM&C system. This

core data framework connects previously disparate data sources for mission operators and accelerates the ability for future mission-critical applications to be developed.

The Space Systems Command mission is to provide real-time global access to resilient and sustainable SATCOM capabilities for joint operations warfighters. EM&C enables resilient, uninterrupted satellite communications with the ability to rapidly plan, allocate, monitor, detect, locate, assess, and resolve issues to improve situational awareness and overall mission effectiveness.

Ground processing is a critical component of the overall space landscape, and combined with on-board processing capabilities, BAE Systems' technology makes missions more effective. The company's products increase the ability for on-orbit, real-time interaction and decision-making.

Boeing Unveils First USAF T-7A Red Hawk Trainer



Boeing has unveiled the first T-7A Red Hawk advanced trainer jet to be delivered to the US Air Force. The jet, one of 351 the US Air Force plans to order, was unveiled prior to official delivery.

The fully digitally designed aircraft was built and tested using advanced manufacturing, agile software development and digital engineering technology significantly reducing the time from design to first flight. The aircraft also features open architecture software, providing growth and flexibility to meet future mission needs.

"We're excited and honored to deliver this digitally advanced, next-generation trainer to the US Air Force," said Ted Colbert, president and CEO, Boeing Defense, Space & Security. "This aircraft is a tangible example of how Boeing, its suppliers and partners are leading the digital engineering revolution. T-7A will prepare pilots for future missions for decades to come."

The T-7A Red Hawk incorporates a red-tailed livery in honor of the Tuskegee Airmen of World War II. These airmen made up the first African American aviation unit to serve in the US military.

"The Tuskegee Airmen are one of the most celebrated units in our Air Force history, and the T-7A honors the bravery and skill of these trailblazers, said Gen. Charles Q. Brown, Jr., Chief of Staff of the Air Force. "Like the Airmen they were named and painted to pay homage to, the T-7A Red Hawks break down the barriers of flight. These digitally-engineered aircraft will make it possible for a diverse cross section of future fighter and bomber pilots to be trained, and provide an advanced training system and capabilities that will meet the demands of today's and tomorrow's national security environment."

The aircraft will remain in St. Louis where it will undergo ground and flight tests before being delivered to the US Air Force. The T-7A program resides at Boeing's St. Louis facility with the aft section of the trainer being built by Saab in Linköping, Sweden. Saab will soon start producing that section at their new production facility in West Lafayette, Indiana.

Raytheon Intelligence & Space installs first Global ASNT System for the US Air Force



Raytheon Intelligence & Space, a Raytheon Technologies business, completed the installation of the first Global Aircrew Strategic Network Terminal system for the US Air Force. The terminal system modernizes existing protected communications systems while adding new capabilities for nuclear and non-nuclear command and control. Global ASNT ensures robust communications to provide protected communications to nuclear bomber, missile and support aircraft crews in austere environments.

“Operating on both MILSTAR and Advanced Extremely High Frequency satellites, Global ASNT systems use satellite communications to provide command and control, linking nuclear forces to national command authorities,” said Denis Donohue, President, Communications & Airspace Management Systems, RI&S. “These expanded capabilities will provide the critical data needed at the tactical edge to make smart decisions in near real time, including supporting the Defense Department’s Joint All Domain Command and Control initiatives for the joint services.”

The contract is administered through the US Air Force Nuclear Weapons Center and supports US Air Force Global Strike Command. The total awarded contract value for Global ASNT is nearly \$600 million.

The RI&S team is completing three additional base installs that will comprise Global Strike Command’s Initial Operating Capability. As production and fielding continue, 90 terminals, including spares and support equipment, will be produced and fielded in fixed and transportable configurations by the end of 2023.

Primary work locations for this effort are in Florida and Massachusetts with major suppliers in California, Pennsylvania and Texas; the balance of the more than 200 suppliers supporting the program are spread across the US.

First Batch MH 60R 'Romeo' Aircrew Successfully Completed their Training at San Diego, USA



Indian Navy's first batch of MH 60R 'Romeo' aircrew have successfully completed their training at Naval Air Station, North Island, San Diego, USA on 01 April 2022.

The 10-month long course included conversion training and other advanced qualifications on MH 60R helicopter. The crew flew extensively from Helicopter Maritime Strike Squadron – 41 (HSM 41) and achieved day and night deck landing qualification onboard a US Navy Destroyer. The crew would be responsible for inducting the versatile 'Romeo' into the Indian Navy.

The helicopters will provide the Indian Navy enhanced capabilities including Anti-submarine Warfare, Anti-ship Strike, specialised maritime operations and SAR operations. 24 MH 60R helicopters procured under a Government-to-Government FMS deal are to be delivered to the Indian Navy.

RNLAF to Begin MQ-9 Operations in Curacao

The Royal Netherlands Air Force (RNLAF) has taken delivery of three MQ-9A Block 5 Remotely Piloted Aircraft (RPA) and two Mobile Ground Control Stations from General Atomics Aeronautical Systems. The RNLAF will begin operating the MQ-9s later this month out of Curacao to provide long-range, persistent surveillance to support missions protecting the Netherlands' national interests.

"We are excited to receive our aircraft and start operating with them straightaway. The MQ-9A Reaper will be very valuable for information-driven operations with the Royal Netherlands Air Force and the Netherlands' armed forces in general. We will operationally test and evaluate the system during our deployment to Curacao and expect it to be a valuable asset for the Commander of Netherlands Forces in the Caribbean," said Lieutenant-Colonel Boudewijn Roddenhof, commander of the RNLAF's 306 squadron, which will operate the new MQ-9A Reapers.

The delivery of the first three of four MQ-9As, their Ground Control Stations (GCS), and support equipment is part of a USAF Foreign Military Sale to the RNLAF.

"We're thrilled to deliver the unique capabilities of our MQ-9A Block 5 RPA to the Netherlands, and we know this capability will significantly enhance their operations," said GA-ASI Vice President of International Strategic Development Robert Schoeffling.

MQ-9A Block 5 has endurance of over 27 hours, speeds of 240 KTAS and can operate up to 50,000 feet. It has a 3,850-pound (1,746-kilogram) payload capacity that includes 3,000 pounds (1,361 kilograms) of external stores. It provides a long-endurance, persistent surveillance capability with Full-Motion Video and Synthetic Aperture Radar/Moving Target Indicator/ Maritime Radar. An extremely reliable aircraft, MQ-9A Block 5 is equipped with a fault-tolerant flight control system and triple redundant avionics system architecture. It is engineered to meet and exceed manned aircraft reliability standards.

Second successful high-altitude flight-test of Anti-Tank Guided Missile 'HELINA'



As part of the ongoing user validation trials, indigenously-developed Anti-Tank Guided Missile 'HELINA' was again successfully flight-tested from Advanced Light Helicopter on April 12, 2022. Teams of Indian Air Force and Indian Army, along with Defence Research and Development Organisation (DRDO), conducted the trial at the high altitude range. This is the second successful flight-test in successive days.

Today's trial was carried out for different range and altitude. As per the plan, the missile engaged the simulated tank target accurately. The trials were witnessed by senior Army Commanders and scientists of DRDO. With the flight-test, consistent performance of the complete system, including Imaging Infra-Red Seeker, has been established, which will enable the induction of the 'Helina' into the Armed Forces.

Earlier, validation trials of the 'Helina' were conducted at Pokhran in Rajasthan, which proved the efficacy of the missile in desert ranges.

'Helina' is the third generation, fire and forget Anti-Tank Guided Missile that can engage targets both in direct hit mode as well as top attack mode. The system has all-weather day and night capability and can defeat battle tanks with conventional armour as well as with explosive reactive armour.



**India's No.1
Aviation Recruitment Agency
With Over 15 Years of Experience helping companies
and candidates achieve their goals**

www.lovelyhr.in



sony@lovelyhr.in

(A Div of Lovely Aviation Services Pvt Ltd)



AVIATION UPDATE

Give something special to your friends, colleagues, neighbours, relatives, teachers, anyone with reason to appreciate you, by helping us send them great offers which will also help to increase the reach of your favorite publication, AVIATION UPDATE.

Term	News-stand Price
1 Year (12 issues) Print Only	Rs. 1800
1 Year (12 issues) Digital Only	Rs. 1200
1 Year (12 issues) Print +Digital	Rs. 3000

SUBSCRIBE NOW

YES! I would like to subscribe/renew my subscription to AVIATION UPDATE (Rs.150 cover price) Courier Charges - 400/Rs Extra

Name :

Address :

.....

City: Pin: State:

Country: Email: Job title:

Industry: Company:

Tel: Mobile:

My cheque / dd no. : Date: Drawn in favour of aviation update.....

For Rs Drawn on Is enclosed herewith.

Or, please charge my credit card: visa master card amex for rs.

Card number:

Card number's name: Date of birth: Card expiry date:

Signature: Date:

PLEASE MAIL THIS COUPON TO:

AVIATION UPDATE, No 27, Rd Number 2a, Tirumala Hills,
Asmangad, Hyderabad, Telangana 500036, India

Tel: 09444499221, 040-24055553

E-mail: Info@aviationupdatemagazine.com

Please add Rs.20/- for cheque not drawn on a Hyderabad bank. Subscription rates subject to change without prior notice. in case of gift subscription.

Please provide mailing details separately

15th - 17th SEPTEMBER 2022

Helipad Exhibition Centre, Gandhinagar, Gujarat



HYBRID EXHIBITION



Knock your Market at the upcoming edition of Drone Expo 2022. The Exclusive Show with latest products & technology right at the doorstep of buyers.

ORGANISED BY



CO-LOCATED EVENTS



FOR DETAILS CONTACT:

9350230865 | 9354688923
 strivedi@servintonline.com | arai@servintonline.com

MEDIA PARTNERS

ONLINE MEDIA PARTNER



trade4india.com



3rd
INTERNATIONAL
DRONE EXPO
www.droneinternationalexpo.com

Co-located Events:

7th INTERNATIONAL **POLICE EXPO**
www.internationalpoliceexpo.com

&

6th INDIA **HOMELAND SECURITY EXPO**
www.homelandsecurityexpo.in

DRONE International expo

Participate in India's only dedicated Exhibition for
Drone & Anti-Drone System, Unmanned Systems, LiDAR,
Geospatial, Air Taxi & Drone Components.

06 > 07 JULY 2022

Hall No. 8,9, & 10, Pragati Maidan,
New Delhi - India

Contact Person:

Mukesh Kharia

+91 8285009906

mukesh@nexgenexhibitions.com