



**INDIGO EXPANDS REGIONAL
PRESENCE, ANNOUNCES RAJKOT
AS ITS NEW DESTINATION**



**AIR CAIRO RECEIVES ITS
FIRST AIRBUS A320NEO**

AVIATION UPDATE

India's premier aviation monthly magazine

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OPPORTUNITIES IN
INDIAN AVIATION
INDUSTRY**



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AVIATION UPDATE

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Hello folks

Welcome to yet another exciting issue of Aviation Update.

As they say 'the time flies', May 2021 marks one year since the air travel was opened to civilians in India during the gloomy days of the lockdown. Right when the social beings feared the possible confinement for an uncertain period of time, as always Aviation has proved itself to be one step ahead in terms of innovating new ways for a safer travel experience and gave us what we needed the most; freedom to travel! And what followed next is history.

As always, we got you covered with the most crucial updates from the world of aviation. Nothing feels special without boasting about our special interview with Mr. Bharat Malkani, head of MRO Association of India & Chairman of Max Aerospace, which is focussed on the aircraft MRO industry. You can hear it from Mr. Christophe Benaroya, Programme Director at Toulouse Business School about the new generation leaders that are needed to head aviation in the post covid era. Dr. V Balakista Reddy of NALSAR University of law adds even more optimism in the cover story focussed on the career opportunities in Indian aviation.

This time around, we got you loads and loads of information in the 'Appointments', 'Air Cargo', 'Defense & Military', 'Business Aviation' pages. Also watch out for the 'Aero City' at GMR airport Hyderabad envisioned to increase the business connectivity that you don't want to miss out.

Before I take your leave, I remind you to beware of the prevailing situation and act sensibly and responsibly by staying safe and keeping your beloved once safe. Our prayers are with the families that are affected. And, show your fair share of humanity by helping those in need by any possible means.

Until you hear from us in the next issue, stay safe, stay healthy, goodbye and God bless!

Thanks

B. Kartikeya
Editor

■ HONEYWELL TO PROVIDE CRITICAL NAVIGATION AND SENSOR TECHNOLOGY FOR PIPISTREL'S UNMANNED CARGO AIRCRAFT



Pipistrel has selected Honeywell's next-generation Attitude Heading Reference System and Air Data Module for its Nuuva V300 cargo unmanned aerial vehicle (UAV). The technologies provide critical navigation and motion-sensing data and will work in tandem with Honeywell's Compact Fly-By-Wire system onboard the aircraft.

If the fly-by-wire system operates as the "brain" of an aircraft's flight controls, the Attitude Heading Reference System (AH-2000) and Air Data Module (ADM) act as the "heart," supplying critical motion data to all avionics systems and many mechanical systems. Both the AH-2000 and ADM are key enablers for safe and efficient vehicle operations with potential to serve several flight applications, including urban air mobility vehicles, commercial aircraft, business jets and helicopters.

"Nuuva V300's groundbreaking operational concept requires highly accurate, dependable and robust navigation sensors, and the AH-2000 and ADM are key enablers of this functionality," said Tine Tomažič, chief technology officer, Pipistrel. "This technology allows us to deliver simple and intuitive mouse-click control to fly the vehicle, eliminating the need for operators to be trained with traditional piloting skills, which helps ensure rapid scale-up of operations for our customers."

Pipistrel's Nuuva V300 is a long-range, large-capacity, autonomous UAV. It will take off and land vertically with battery power, meaning it does not require a runway, and has significantly lower operating costs than helicopters. It can carry loads up to 460 kilograms (around 1,000 pounds) for more than 300 kilometers (about 186 miles),

making it an ideal solution for deliveries to areas traditionally accessible only by helicopter.

"Unmanned aircraft, especially those delivering packages, must be equipped with high-performing inertial systems to ensure fly-by-wire systems are provided the best possible information on location, speed and position," said Matt Picchetti, vice president and general manager, Navigation & Sensors, Honeywell Aerospace. "Vehicles like Nuuva V300 will change the way logistics companies fulfill package deliveries, and we're proud to add our growing list of onboard technologies to enhance safety and make flying easier."

■ EMBRAER AND BRAZILIAN AIR FORCE SIGN A MEMORANDUM THAT AIMS THE STUDY OF UNMANNED AIRCRAFT SYSTEM



Embraer and the Brazilian Air Force (FAB) signed a memorandum of understanding (MoU) that establishes a cooperation for the study and evaluation of the necessary capabilities for the conceptual design and development of advanced unmanned aircraft system to meet FAB's needs. "This is a unique opportunity for the Brazilian Air Force to deepen its studies in disruptive technologies that may cause an imbalance in current and future scenarios," stressed the Brazilian Air Force Commander, Lieutenant-Brigadier Carlos de Almeida Baptista Junior. "In modern war, it is essential to use unmanned aerial platforms, operating alone or in conjunction with conventional aircraft. Such technology makes it possible to reduce costs and risks, without losing effectiveness in fulfilling the missions assigned to the Brazilian Air Force."

"This study is of fundamental importance for the maintenance and expansion of Embraer's competencies in

the development of aerial defense systems with high technological content and great integration complexity," said Jackson Schneider, President and CEO, Embraer Defense & Security. "It is also an opportunity for the continuous development of new technologies and products for the FAB and the Ministry of Defense, aimed at expanding the operational capacity and guaranteeing national sovereignty. A major challenge for this aerial system will certainly be its integration and joint operation with other systems and aircraft, manned or unmanned."

The cooperation within the scope of this MoU aims at the joint study of the needs of the FAB in the context of its missions, as well as the understanding and prioritization of operational and logistical elements related to the development of a superior class unmanned aircraft system of multiple capacities.

The development of an unmanned aerial aircraft system with Brazilian technology offers a relevant opportunity to the Defense Industrial Base (DIB) and its strategic companies, promoting its development and strengthening knowledge to meet the needs of the Brazilian State.

■ SPICEJET SIGNS MOU WITH AVENUE CAPITAL GROUP FOR FINANCING, ACQUISITION AND SALE AND LEASE-BACK OF UP TO 50 AIRCRAFT

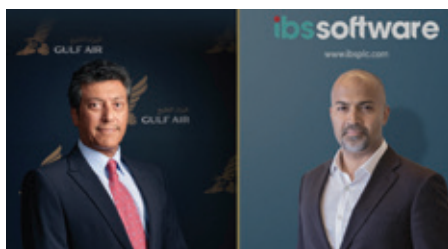


SpiceJet, the country's favourite airline and the largest regional player, has signed a Memorandum of Understanding (MoU) with Avenue Capital Group, New York for a strategic alliance in respect of the financing, acquisition and sale and lease-back of 50 new planes to be ordered by the airline.

The MoU sets out the next steps and conditions upon which Avenue, as part of the strategic alliance with SpiceJet, will assist with placing of SpiceJet's new aircraft portfolio including sale and lease-back of and also assumption of ownership of potentially up to 50 of these aircraft.

Ajay Singh, Chairman and Managing Director, SpiceJet, said, "We are delighted to enter into this strategic alliance with Avenue Capital Group and we look forward to closely working with them. This alliance will ensure a seamless induction of the planes in our fleet and help us plan better for the long term."

■ GULF AIR TO TRANSFORM FALCONFLYER PROGRAMME WITH IBS SOFTWARE'S IFLY LOYALTY



Gulf Air, the national carrier of the Kingdom of Bahrain, has selected IBS Software as a partner to enhance its Falconflyer loyalty programme (FFP) and provide Gulf Air with the flexibility to dynamically adapt its Falconflyer programme to meet the needs of travellers and enhance its members experience.

Gulf Air has entered into this partnership as part of its ongoing digital transformation to deliver the best possible experience to Falconflyers. IBS Software's iFly Loyalty platform will transform the Falconflyer programme for both consumers and partners. Members will benefit from a revamped mobile app and a new customer experience designed to deliver personalised offers and rewards. Programme partners will benefit from an accelerated onboarding process and a new B2B engagement channel that will provide new insights and data to support effective partner management. iFly Loyalty has been developed to help anticipate traveller behaviour, giving airlines the ability to turn data into actionable

insights, enabling loyalty programmes to adapt to changing patterns of behaviour and quickly reconfigure their offerings to members. In addition, iFly Loyalty will provide Gulf Air with the capability to run multiple loyalty programmes from a single platform.

"We are completely committed to providing loyal Falconflyer members with a compelling experience that delivers bespoke offers and redemption options that they value. By partnering with IBS Software, we firmly believe that we will significantly enhance the way we reward our customers, as well as provide greater insight and flexibility to our loyalty partners," said Captain Waleed Al Alawi, Gulf Air's Acting Chief Executive Officer. "IBS Software has impressed us from the outset with their industry knowledge and commitment to supporting our Falconflyer Programme. We look forward to a long and fruitful partnership as we continue with our digital transformation journey."

"Gulf Air shares our passion for customer engagement, and we're thrilled to be working with a business that implicitly understands the transformative impact customer loyalty will play in the recovery from Covid-19," said Anand Krishnan, Chief Executive Officer, IBS Software. "We are working closely with Gulf Air to ensure our system has the flexibility required to change with the times and meet the needs of Gulf Air's Falconflyers. We're extremely excited to play our role in helping Falconflyer go from strength to strength at a pivotal time in our industry."

■ INDIGO EXPANDS REGIONAL PRESENCE, ANNOUNCES RAJKOT AS ITS NEW DESTINATION



In its bid to strengthen regional connectivity, IndiGo announced Rajkot as its next destination on the 6E network. The

airline will operate direct flights from Rajkot to Bengaluru, Delhi, Mumbai, and Hyderabad as part of its summer 2021 schedule, w.e.f March 28, 2021. These new connections will strengthen connectivity between Rajkot and the key metro cities in the country, while fulfilling the demand for enhanced connectivity.

Mr. Sanjay Kumar, Chief Strategy and Revenue Officer, IndiGo said, "We are pleased to announce Rajkot as our new domestic destination to strengthen regional connectivity. Rajkot, known for its casting and forging industries, is one of the prime industrial centres in Gujarat. Increased connectivity to Saurashtra's financial capital will boost trade, commerce, and tourism in the region. IndiGo is committed to providing an affordable, on-time, safe and hassle-free travel experience onboard our lean clean flying machine".

■ BOEING LAUNCHES \$10 MILLION EMERGENCY ASSISTANCE PACKAGE TO SUPPORT INDIA'S COVID-19 RESPONSE



Boeing announced a \$10 million emergency assistance package for India to support the country's response to the current surge in COVID-19 cases. The assistance from Boeing will be directed to organizations providing relief, including medical supplies and emergency healthcare for communities and families battling COVID-19. The Boeing team in India totals 3,000 employees, in addition to valued local customers, suppliers, and business partners.

"The COVID-19 pandemic has devastated communities across the globe, and our hearts go out to our friends in India who are going through a very difficult time. Boeing is a global citizen, and in India we are directing our pandemic response to the communities

most impacted by this recent surge of cases," said Dave Calhoun, president and chief executive officer of The Boeing Company.

Boeing will partner with local and international relief organizations to deploy the \$10 million to the areas of greatest need in consultation with medical, government and public health experts.

Boeing employees also have an opportunity to donate personally to charitable organizations supporting COVID-19 relief in India. As part of the Boeing Gift Match program, the company will match monetary donations dollar for dollar, extending the reach of assistance being provided to the Indian people.

"Boeing not only stands in solidarity with the Indian people in their effort to confront this pandemic, we will be a part of the solution," added Calhoun. "We will continue to monitor the pandemic response in India and work to support our employees, customers, and partners through this crisis."

■ DUBAI AEROSPACE ENTERPRISE ORDERS 15 BOEING 737 MAX JETS



Dubai Aerospace Enterprise (DAE) announced the aircraft lessor is growing its 737 MAX portfolio with an order for 15 737-8 jets. DAE had been investing in the 737 MAX by buying jets from existing customers and leasing them back to the carriers. The new order is DAE's first direct 737 MAX purchase from Boeing as it modernizes its portfolio for better economic and environmental performance.

The order will appear on Boeing's Orders and Deliveries website once finalized.

FirozTarapore, Chief Executive Officer of DAE, said: "We are delighted to deepen our already strong relationship with Boeing. Including this order, we own and manage 162 Boeing aircraft. An increasing number

of global aviation regulators are returning the MAX to the skies. We are confident in the success of these aircraft as domestic and regional air travel are seeing strong signs of recovery."

The new purchase is DAE's second investment in the 737 MAX in the past year. In the third quarter of 2020, the lessor signed an agreement with American Airlines to purchase and lease back 18 new 737-8 airplanes. Since the agreement, the lessor has delivered 17 of the jets to the U.S. carrier. DAE previously completed a similar purchase-leaseback deal with Brazilian carrier GOL for five 737-8s.

"DAE has been instrumental in helping its customers realize the operating economics and environmental performance of the 737-8. We are delighted that they have come back to add more 737 aircraft to its growth plan as it positions itself for the recovery in commercial passenger traffic," said IhssaneMounir, Boeing senior vice president of Commercial Sales and Marketing. "We are honored by DAE's trust in the 737 family and we look forward to partnering with them to serve the fleet requirements of airlines around the world."

■ INDIGO WAIVES-OFF CHANGE FEES ON DOMESTIC BOOKINGS MADE TILL APRIL 30, 2021



IndiGo – announced that it will waive-off change fees on new bookings made from April 17, 2021 till April 30, 2021. The airline also announced that the passengers can now do unlimited changes for new bookings made till April 30, 2021 on regular fares under this offer. However, there is no change in the cancellation fee, and that will be chargeable.

Mr. Sanjay Kumar, Chief Strategy & Revenue Officer, IndiGo said, "It is our constant

endeavour to create customer delight and enhance our customer experience. This offer is in line with our philosophy of providing our customers a hassle-free experience, and giving them much needed flexibility, especially in these times. As always, we look forward to welcoming our customers on our Lean Clean Flying Machine".

■ JETBLUE TAKES DELIVERY OF A321LR WITH THE FIRST AIRSPACE INTERIOR



U.S.-based JetBlue Airways has taken delivery of its first of 13 A321LR aircraft featuring Airbus' new Airspace interior. These new A321LRs support JetBlue's plan to open its highly anticipated transatlantic services, starting with direct flights to London later this year. In addition to these 13 new A321LRs, the airline also has on order another 57 Airbus aircraft comprising other A321neo variants – which will also feature Airspace cabins. By bringing Airspace to the Single-Aisle Family, JetBlue's A321 cabins will be the very first to feature Airbus' new award-winning cabin design-language and passenger-pleasing cabin features -- which are consistent with Airbus' A330neo and A350 Widebody aircraft.

Robin Hayes, CEO of JetBlue Airways Corp. said: "At JetBlue we are eagerly looking forward to introducing the Airbus A321 Long Range single-aisle aircraft with Airbus' Airspace interior for our new transatlantic services. These aircraft will allow us to offer our customers attentive, boutique-style service, while also ensuring ample personal space, larger overhead bins, customized lighting and a design that gives the cabin a wide-body feel."

"We are thrilled to have JetBlue set yet another trend and introduce Airbus' new Airspace cabin on its long range service," said Christian Scherer, Airbus Chief Commercial Officer. "For sure the outstanding comfort

and in-flight transatlantic experience on board these aircraft will be a winner – for JetBlue, its valued passengers and crew alike!”

■ WIZZ AIR ABU DHABI LAUNCHES ITS FIRST FLIGHT FROM TEL AVIV TO ABU DHABI ON 18 APRIL



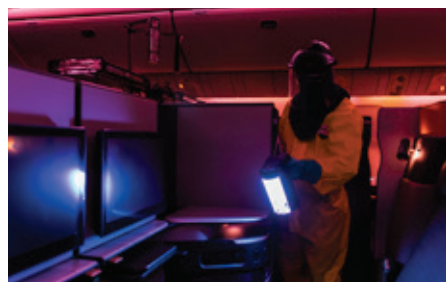
Wizz Air Abu Dhabi, the newest national airline of the United Arab Emirates, has announced that it starts the operation of the Tel Aviv - Abu Dhabi route on 18 April 2021, following the announcement that Israel has been added to the green list, meaning travelers will no longer need to quarantine upon arrival in Abu Dhabi. Tickets are already on sale on wizzair.com and the airline's mobile app, with fares starting from NIS 89*.

The connection between Tel Aviv and the capital of United Arab Emirates will open new opportunities for Israeli travelers and will strengthen connections between the two Middle Eastern countries. The new route will carry 3 weekly flights in April 2021. Starting from May 2021, Wizz Air Abu Dhabi will operate flights between the two destinations on a daily basis.

The entry to Abu Dhabi will be available to passengers from Green Countries who hold visas to any of the Emirates. Israel is currently holding the “Green Country” status.

Kees Van Schaick, Managing Director of Wizz Air Abu Dhabi, said: “In light of the recently eased restrictions, I’m delighted to announce the date of the first WIZZ flight from Abu Dhabi to Tel Aviv later this month. The connection between the two cities is a historic moment – the link between the UAE and Israel will further contribute to the tourism sector and help to diversify the local economy, while bringing new low-fare business and leisure opportunities for travelers.”

■ QATAR AIRWAYS INTRODUCES THE LATEST VERSION OF HONEYWELL’S ULTRAVIOLET CABIN DISINFECTION TECHNOLOGY ON BOARD



Qatar Airways becomes the first global carrier to operate Honeywell’s Ultraviolet (UV) Cabin System version 2.0, further advancing its hygiene measures on board.

The latest version of the Honeywell UV Cabin System that is owned and operated by Qatar Aviation Services (QAS), has been introduced to add flexibility, improve reliability, mobility and ease of use compared to its predecessor, with extended UV wings that treat both narrow and wide areas on board, reducing the overall disinfection time. This version also includes a hand wand that disinfects areas like the cockpit and other smaller spaces and is non-motorised leading to less battery consumption. In clinical tests, UV light has been shown to be capable of inactivating various viruses and bacteria when properly applied.

After receiving 17 units of the latest version of the Honeywell UV Cabin System V2, the devices have all undergone comprehensive testing on board Qatar Airways’ aircraft. The airline aims to operate them on board all aircraft turnarounds at Hamad International Airport (HIA).

Qatar Airways Group Chief Executive, His Excellency Mr. Akbar Al Baker, said: “As the first global airline to operate the latest version of the Honeywell UV Cabin System V2 on board our aircraft, it is significantly more user friendly and technologically advanced. QAS has continued to maintain our impeccable service during the outbreak of COVID-19, specifically supporting with repatriation flights and increased cargo workloads.

“As the first global airline in the world to achieve the prestigious Skytrax 5-Star COVID-19 Airline Safety Rating, the first airline in the Middle East to begin trials of the innovative new IATA Travel Pass ‘Digital Passport’ mobile app, and most recently, the first airline in the world to operate a flight with fully vaccinated crew and passengers - it is in our core to continuously be at the forefront of innovation, and to keep implementing the latest safety and hygiene measures on board and on the ground.”

■ AIR CAIRO RECEIVES ITS FIRST AIRBUS A320NEO



Air Cairo, Egypt’s low-fare airline, has taken delivery of its first A320neo aircraft. The new aircraft will join Air Cairo’s all Airbus fleet of seven aircraft.

The aircraft is on lease from ICBC Leasing and is equipped with CFM LEAP-1A engines.

With improved levels of efficiency, the new aircraft will be deployed on Air Cairo’s regional and international network to serve countries across Europe, Africa and the Middle East – demonstrating the operational flexibility of the A320neo. Air Cairo’s fleet expansion and modernization strategy coincides with the airline’s decision to open more routes, fostering closer links with countries across continents.

Offering the airline exceptional technical, economic and environmental performance, Air Cairo’s A320neo is configured with 186 seats in an all-economy-class cabin. Passengers onboard the aircraft will benefit from the widest cabin of any single-aisle aircraft and the latest generation in-flight entertainment system.

Mr. Bharat Malkani, Head – MROAssociation of India (MROAI) anticipates MRO industry's growth on the way forward

Throughout your professional journey of over 30 years, you have gained a very vast experience in the field of Aviation and especially the aircraft MRO. Why don't you brief it to our readers?

For as long as I can remember, Aircraft have fascinated me. Not to fly but to build and innovate. Max Aerospace was created with goal in 1994. Its' primary objective was

to offer global class leading MRO services to the newly launched private Airlines. Max Aerospace received its DGCA approvals in 1995 and began this journey into becoming one of India's leading MRO for both civil and military aircraft. It became the first company in India to have comprehensive approvals by EASA, FAA, CEMILAC, AS 9100D and DGAQA. Our vision was to build an organization which would be cost competitive, profitable and sustainable. Starting off as the lone owner employee, today we deploy over 200

personnel nationwide. We created joint ventures with global behemoths like Air France KLM and Safran and continue to be one of the only MROs' in India that exports our services globally. We are recipients of numerous National Awards for our contribution to Indian aviation. Our strength lies in our people and their agility to adapt to changing situations.

How has MRO Association of India evolved since its inception? What are your major accomplishments as its President?

The MRO Association of India was created by a group of like-minded individuals who operated in the MRO space of Indian industry. From humble beginnings of a few members, it had grown to become one of the largest member driven aviation associations in India. In recent years we have worked closely with the Indian Government to bring about fundamental changes to the MRO policies that impact our industry. Firstly, there is no Customs duty anymore applied to MRO companies. This exemption was only available to the Airlines historically. GST rates applicable to Indian MRO companies were @ 18% and for import of services were @ 5%.



“

The Indian Aviation market is the largest in the region and second only to China





This anomaly was rationalized and now MRO whether Indian or Imported pays GST @ 5%. Finally recently the Airports Authority of India has reduced their land rentals in India by 80% for MRO companies recognizing the strategic importance of this industry to the country. They have also done away with a long standing request of the MRO industry to stop charging royalties. These measures have made a material difference to the industry we acknowledge the massive efforts made by the Ministry of Civil Aviation in understanding the need of the hour and making these changes. The journey has just begun. We expect that in 3 years Indian MRO will be self-sufficient and will also be exporting MRO with revenues reaching \$ 5 Billion by 2025.

Could you provide us an insight into 'Aero MRO 2021' and the worthy points to talk about?

Aero MRO 2021 focused on the changes brought about by the Ministry of Civil Aviation for the industry and the way forward for companies engaged in MRO. It identified new opportunities in Civil Military convergence and brought participants from all organizations, large to small on a common platform to share their experiences and learnings.

What is your view on the status of Indian MRO market? Do you think it is at par with the other markets in the Asia Pacific region?

The Indian Aviation market is the largest in the region and second only to China. Our carriers are growing at a CAGR of 15% and expect the current fleet of 550 aircraft being operated by Indian carriers to double to 1000 by 2025. The impact of Covid however is still being estimated by our industry on the long term sustainability of these growth numbers. Given the historical benefits that were enjoyed by foreign MRO companies, we expect a pushback by India based MRO companies and growth rates in excess of 20% under normal conditions. Currently we import over 90% of our MRO requirements. However, with the fundamental policy changes we are already beginning to see the end of our dependence on imports for MRO.

What are the factors you wish if changed can contribute to the growth of the MROs in India?

The MROAI is in discussions with the Indian Government on a number of changes that are required to be implemented in order for India to reach the target of \$ 5 billion in revenues. These range from fiscal to regulatory and are in the process of being discussed in detail. They will be available on public domain as they unfold.

Where do you see the Indian aircraft MRO among the global market in the next 5 to 10 years?

In 5 years India will start to dominate the regional market for MRO. In 10 years I genuinely expect this platform that has been built by the current MRO stalwarts of India to first pass on the baton to the second generation of aviation professionals. This is the generation of the young women and men working today in Indian MRO. I expect them totake Indian MRO onto a global stage with dominance in certain areas of especially airframe and components. Should we be able to develop our own Turbine engine over the coming decade then surely India will also be able to compete on engines and will have achieved what we call Air Sovereignty.

Would you like to deliver any inspiring words to the entrepreneurs from the Aircraft MRO industry?

Follow your heart.
Never compromise on quality.
Think Air Safety
Think Nation first
Never give up.

EMPLOYMENT OPPORTUNITIES IN INDIAN AVIATION INDUSTRY

“Optimism is a strategy for making a better future. Because unless you believe that the future can be better, you are unlikely to step up and take responsibility for making it so,” ---Noam Chomsky, American linguist, philosopher, cognitive scientist, social critic, and political activist.



Prof. (Dr.) V. Balakista Reddy

Professor of International Law & Registrar Head, Centre for Aerospace and Defence Law NALSAR University of Law.

Optimism in Indian Aviation Industry:

In January 2019, the Government of India hosted the Global Aviation Summit in Mumbai in which there were participants from 83 countries. The government of India unveiled the Vision 2040 document for civil aviation in India during the summit. That event was hosted in the backdrop of double digit growth of Indian civil aviation for over a decade, except for the present pandemic times. There is no doubt that the civil aviation

sector is the most affected sector by the epidemic and hundreds of airlines have to ground thousands of airplanes due to flight bans. Before Covid Pandemic, India's Aviation industry witnessed high growth trajectory and expected to become the third-largest aviation market by 2024 and the largest by 2030. Reasons for this Optimism include growing population, increasing of Middle class incomes, low-cost carriers, relaxing the FDI norms, introduction of PPP in aviation industry, modernization of airports, growing customer base, healthy competition in the market and growing regional connectivity.

Further, a large and fast growing domestic market, a strategic geographic location at the crossroads of key intercontinental routes, a large global diaspora that continues to maintain strong ties with India, an abundance of natural, historical and cultural attractions to attract tourists and stopover traffic, a competitive and growing pool of English language speakers and engineers; Rising domestic Gross Domestic Product (GDP); Demographic dividend; Rising urban population; significant changes in domestic and international markets and so on has their share of contribution. India has 103 functional airports and the number is set to almost double by the year 2040. As per IATA forecast, investment to the tune of INR 420-450 billion is expected on India's airport infrastructure over the next few years. Creation of a hundred new airports within a span of 20 years will need enormous economic activity and trained manpower.



Changing Notion of Air Transport:

Air travel was once considered a luxury for both business and private needs. Since the 1980s, popular opinion began shifting towards deregulation, Liberalization and privatization of the air transport sector. Many forces including growth in demand for air services, technical changes, emphasis on safety and changing perceptions of limited Government intervention in commercial activities contributed to the shift. The burgeoning growth in air traffic also put additional strains on the aviation system and its regulatory structure. Increasing passenger demand was not meted out by satisfactory services to cater to the demand. It was not only a trend with increasing passenger demand but the passengers demanded variety and options in aviation services, such as low-cost and no-frill airline services. This need for variety in services fostered the entry of such services into the market post deregulation.

It was in the late 1980's the liberalization and open sky policy started in Indian aviation industry. Privatization of airports through the PPP Model has further opened doors for lucrative business opportunities for many private players. Airline sectors is in need of Airline Managers, Business Development Managers, Marketing Managers, Safety

& Security and Operations Managers, International Relations Manager, Aviation Law Experts, Human Relations Managers, Finance Managers, Environmentalists etc. for which our courses help students. The winds of LPG have brought legal and managerial challenges and only those who take steps to appropriately train themselves professionally can think about evolving in their employment. Major airlines like Air India, Indigo, Air Vistara, Spice Jet, Go Air and Air Asia are moving forward very fast. Air Asia, is the first foreign airline to set up a subsidiary in India (India-Malaysian LCC). Flybig took off in 2021 and several startups are in the pipeline.

Emerging Job Opportunities:

These are termed as direct, indirect and induced impacts. The direct economic impact is obtained by measuring the values of the activities of airlines, airports and business generated at airports, including everything from fuel supplies to fast food counters. Direct impact are consequences of economic activities carried out at the airport by airlines, airport management, Fixed Base Operators (FBO) and other tenants with a direct involvement in aviation, employing labour, purchasing locally produced goods and services, and contracting for airport services, capital improvements and maintenance works. While some direct impacts like airport employment occur on site, others like local production of goods and services for use at the airport occur off site.

The indirect economic impact is derived from the off-airport activities of passengers and shippers, such as expenditures at travel agencies, taxi operators, hotels and restaurants, tourist attractions and so on. The induced impact is calculated with the help of a multiplier, which estimates the successive rounds of spending generated by the recipients of the direct and indirect economic benefits.

Aviation generates a host of less tangible spin-off benefits such as development of new business units in locations with good air service links to the rest of the world, support for the development of new technology and distribution process based on the rapid movement of people and goods. The air transport economic impact therefore does not stop at the end of the runways or the terminal doors. Business activity at airport

induces several hundreds of other jobs in the outskirts and other parts of the city housing the airport and some of them going so far away places/towns. The spin off effects of air transport economics is numerous.

Jobs in air transport cover a wide range of activities and skills. These include, skilled work by technicians building and maintaining aircraft; a diversity of technical engineering jobs from aircraft and engine design to component production; air traffic control and airspace design planning; logistics for airlines and airports; complex information technology systems on board aircraft and in areas such as baggage handling systems design; service industry support jobs such as chefs in catering companies; creative positions in design and marketing; customer services occupations in airline ticketing, check-in, cabin crew and retail; manual staff on airfields; air traffic controllers and pilots; emergency response personnel at airports; and leadership, management and executive roles.

As this list indicates, many roles in the air transport sector require a highly qualified work force and a significant amount of aviation education and training. Value-added per employee in the air transport sector (direct employees, excluding non-airside activity at airports) generates 3.6 times as much value-added per employee than the economy as a whole —indicating a more productive workforce.

This is particularly true for the large populations of Asia-Pacific, Africa and Latin America. In addition, growth in the aerospace sector is helping to drive innovation and skills development in countries that have not normally been associated with aircraft manufacturing.

Aviation jobs in the future will be different from today. Virtual Customer Service, Satellite Information Engineers, Social Media Engineers, Remote Aircraft Controllers, Information inter-facers, brand/business builders etc. would be required.

With the projected growth in air traffic and in order to replace industry professionals retiring over the next decades, you can realize the demand for professionals in the aviation, more so, for India. The focus thus moves over to Aviation Education and Training.

Indian civil Aviation offers promising

millions of job opportunities in the aircraft manufacturing, airport infrastructure, airport and ground support equipment, MRO facilities, Ground Handling Services, Air Cargo, Air Navigation Services, not to mention the tremendous opportunities in the Pilots/Cabin Crew and Air Traffic Controllers.

Aviation Education and Training:

While we highlight the aviation growth, not much is done to meet the manpower requirement, more so, in India. It is the opportune moment for Indian aviation industry to support the training activities, especially aviation management education even at the cost of overspending on training as it would bring back multiple benefits. Here again, very often there is a mix up between Education and Training. We must keep in mind that it is easier to train an aviation educated person, training alone cannot meet the professional standards unless he/she is aviation-educated more so for the future needs of aviation industry. It is not an easy task. We need to take a comprehensive view of the whole situation and re-plan the aviation education and the requisite training in a phased manner. We need to keep in mind that the aviation management has undergone a paradigm shift to aviation business management, so, the focus is on 'Business'. We need to focus on both periphery and core activities, skills and competencies required at these two different levels. Core activities would certainly need higher education and advanced training.

Conclusion

An Aeroplane always takes off 'against the wind' to stay above everything else and so does the Aviation industry. Aviation is one key sector that is always prone to constant developments and is known for its 'No compromise' policy in terms of maintaining safety. This has contributed to the quick revival of air travel when the other industries are caught in the turmoil. Despite going through the rough tides, aviation never lost its demand and has always been an essential industry, which will only gain even more traction once it is open to the world again. Thus brings with it, a lot of employment opportunities, perhaps more than ever to be prepared for any unprecedented scenario with its foresightedness.

NEED FOR MANAGEMENT IN AEROSPACE MORE THAN EVER

In just a few months, the aeronautics sector, which until recently was considered one of the most vigorous and promising with its solid order backlog and prospects for continued growth in air traffic, has suddenly become one of the sectors most affected by the pandemic. The shock has been violent for this sector used to live in the illusion of a perennial "too big to fail" market: a 95% drop in world traffic in April 2020, one third of the 23,000 aircraft in the world grounded, 50% of the orders cancelled, generating thousands of job cuts worldwide and massive support from governments. This crisis, impossible to anticipate in its extent and unprecedented in many respects, has nevertheless revealed, on the one hand, a certain number of deficiencies and, on the other hand, challenges to be met to ensure the future of this strategic and critical sector for human activities. Hence, the painting is not full black, even though all stakeholders have been impacted but in a very variable manner depending on the geographical areas and the nature of the activities (space, cargo, defense, drones, UAM, business aviation...). This worldwide "mobility turn" is now pushing hard and fast the entire transportation industry towards a more energy-efficient and eco-friendly approach, which represents a unique opportunity to speed up the transformation of the transport world.

For even the most experienced technical talents in the aerospace industry, it is the perfect time to upskill and get ready for new challenges ahead. The industry is going to require even more agile managers who are competent problem-solvers, critical thinkers, and able to navigate the challenges of the business. Going beyond promising technology is key and requires an optimized, "augmented",



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Graduated from Toulouse Business School, hold a master degree (post-graduate) in Management Science from Toulouse University and a PhD in Marketing from Lyon University. He first worked in the industry, being successively B2B junior assistant to product manager, marketing consultant, senior consultant and finally Head of Marketing Research Department in an international consulting firm specialized in Aerospace consulting. In the mid-2000, he became professor of Marketing, initially leading the "Business to Business Management" program in Barcelona Campus (Toulouse Business School) for 8 years, and has been in charge simultaneously of the English Track of the international "Mastère Spécialisé Marketing Management & Communication" for 9 years.

From 2015 to 2020, he's been the Director of the Aerospace MBA programs delivered in Toulouse (France) and Bangalore (India), multiplying by 3 the number of MBA students and graduates. In parallel, he kept the academic supervision of the B2B management track in Barcelona (Spain). In 2021, he's heading the TBS "Aerospace & Mobility Center of Excellence" covering all training, research and business activities related to this sector.

His research activities deal with B2B marketing, aerospace, business & project marketing (complex sales), especially from the perspective of branding & naming. Grounded into his professional experience in B2B marketing consultancy (in the aerospace sector), these research activities gave birth to the publishing of articles in academic journals, and to several Books (jointly with Philippe Malaval), both in France and abroad (Europe, USA, China, South America)



fluid and sustainable passenger experience. This systemic transformation of multimodal transport should be approached in a trans-disciplinary manner.

All these stakes and new challenges are already on the roadmap and the bubbling initiatives and projects launched in Toulouse, France. This is the perfect place for reinventing and transforming the world of transport. Toulouse is the European capital city for civil aerospace (1/4 of all European jobs in space, first aeronautic region in Europe), #1 city in France in terms of higher education and research, with a rich and strong ecosystem in automotive, IoT, Artificial Intelligence. Companies such as Hyperloop, Easymile, Kineis, Aura Aero (new aircraft manufacturer) and so many more, have successfully been launched or set up recently. Fueled by leading organizations and institutions, local, regional, national and European funding, projects and start-ups are emerging dealing with the future of aviation (general aviation, civil aviation, hydrogen, electric aircraft, sustainable aviation fuel...), Urban Air Mobility (drones, air taxi...), on hydrogen trains, on new space (for instance creation of a European Space University with institutions from Toulouse, Germany, Poland, Sweden and Luxemburg). Despite the crisis, many players are demonstrating not only their resilience but their ability to shape the future of aerospace. Temporary governmental support to ease and speed-

up the current initiatives definitely helps. But the main driver remains the passion and the willingness to overcome this crisis in providing superior value to the market. Pierre-George Latécoère said "All the calculations show it can't work. There's only one thing to do: make it work".

In this rich aerospace soil, academic institutions and research labs play a crucial role. Notably the University of Toulouse (UniversitéCapitole, Jean Jaurès, Paul Sabatier), Toulouse School of Economics (world-renowned center for research and education hosting more than 150 international faculty including Jean Tirole, 2014 Nobel laureate in economics), the Institut national polytechnique de Toulouse, ENAC - National School of Civil Aviation, ISAE-SupAero (World leader in aerospace engineering higher education), and TBS (Toulouse Business School) are prominent academic institutions.

At the heart of a world-class aerospace complex located in this exceptional industrial, academic and research environment, Toulouse Business School shares its management expertise with the Aerospace world. Located indeed at the core of the biggest and most dynamic Aerospace Region in Europe, TBS is fully involved in the aerospace landscape and has developed strategic relationships with companies such as Airbus, ATR, Latécoère, Liebherr, Thales, Thales Alenia Space, Airbus Defense & Space, CNESFrench Space Agency,

Aerospace Valley... TBS has a long history in training managers for the aerospace sector. The school has enriched its portfolio of dedicated training courses in Aerospace Management over the last 20 years and is training in the new skills required to adapt practices and operations to the "new normal", beyond the current crisis. The programs are designed to help students come up with new ideas on types of management and organization, new ways of working, new business models, on how to ensure the transition with current models, measure and prepare the acceptability of new transport solutions, and on how to invent travel offers with a societal value.

TBS is offering a Bachelor's degree in Aviation Management, as MSc in Aerospace Management, Executive education training, and an Aerospace MBA. The latter has a very special and rich history. Operated since 1999, it has been the first specialized MBA worldwide being accredited by AMBA in 2002. Since its inception, the program has been supported by key players in the sector who as a matter of fact strongly encouraged its foundation. This is the only general and international executive program dedicated to aerospace management for business. It brings together senior executives from diverse background from all over the world to experience challenging management & international environment. The participants share a passion and curiosity for Aerospace, academic achievements, professional experience and managerial skills, leadership potential, international exposure, openness and strong values. They attend this program to get a big picture and develop and enhance their managerial and leadership skills in the aerospace value chain (aircraft manufacturing OEM, Tier1, Tier2, airport, air transport, aviation, MRO, space). Thanks to the experts, the participants themselves and the faculty from the aerospace industry and its sub-sectors (aviation, civil aircraft and engines manufacturing, defense and space), these professionals share and reflect on their experience and expertise, develop and deploy a global and international network of future leaders.

In 2015 the program has been launched in Bangalore, India, in partnership with the top leading and prestigious Indian Institute Management Bangalore (IIMB), fuelled by exactly the same motives and ambition

as the original ones. The Indian Aviation sector is indeed poised for rapid growth. As the industry grows, there is a need for professionals who combine technical skills with managerial acumen to take up leadership roles in this sector. In these turbulent times, there is a critical need for agile problem-solvers. In India, the TBS Aerospace MBA is a two year programme delivered by both faculty members from TBS and IIMB together with industry experts from Aeronautics, Aviation, Space & Defence. First year (Stage 1) of the programme, called "GMAE" is dedicated to Aerospace and Aviation Core Management and second year (Stage 2) is dedicated to Aerospace and Aviation Sub-Sectors, Management Challenges and supervised projects. GMAE is a part-time certificate programme for working professionals from the Aerospace and Aviation sector. The programme is being offered by IIMB in partnership with Toulouse Business School, France. Participants who successfully complete the GMAE programme are eligible to pursue the Aerospace MBA being offered by TBS.

Be it in Toulouse or Bangalore, the Aerospace MBA program makes a valuable contribution to the Aerospace ecosystem where professionals, academics, researchers and students come together to share knowledge and experience and build a global network. Nowhere else in the world you could find such a large number of origins and cultures and so many manufacturers, airlines, service companies, electronics businesses and research organizations, all

connected in some way to the aerospace sector. That's why this program does attract high-calibre students from all over the world eager to join the program. Based on robust academic content, it is really immersive and rely to a strong Alumni network.

To date, all graduation ceremonies have been presided over by top-leaders of the industry, namely Philippe CAMUS, Alan MULALLY, Jean-Paul BECHAT, Noël FORGEARD, Jean-Cyril SPINETTA, Sir Charles MASEFIELD, Jean-Marc THOMAS, Scott DONELLY, Fabrice BREGIER, Richard HILL, Filippo BAGNATO, Damien LASOU, Ruxandra BRUTRARU, Tom ENDERS, Sameh EL HEFNY, Olivier ZARROUATI, Patrick de CASTELBAJAC, Cédric GAUTIER, Yannick ASSOUAD...

This specialized degree has recently been incorporated into the TBS Global Executive MBA, opening a new page in its history.

The Aerospace & Mobility Center of Excellence

In the frame of the TBS Aerospace & Mobility Center of Excellence, several partnerships with industrial leaders and key stakeholders are supporting both training and research activities (ATR, AIRBUS, ENAC, 3iS, USAIRE...). Beyond the programs indeed, many activities are supporting the learning experience throughout top level conferences organized in the frame of the Aerospace & Mobility Center of Excellence : with ONERA (The French Aerospace Lab) on New Space, on Drones, on All-Electric Aircraft, with TBS student associations (RDVC,

Escadrille, TBS in the air...), TBS Alumni & TBS Aerospace MBA Alumni (in association with ENAC Alumni), with IIMB in the annual and international Future of Aviation & Aerospace Conference, European-American Chamber of Commerce South West, USAIRE South West, Aeromorning...

Beyond the coordination and support of the TBS aerospace programs, the TBS Aerospace & Mobility Center of Excellence also collaborates with:

- The SIRIUS Chair conducts high-level research on space, business and law and provides valuable insights during conferences and events, such as the yearly SIRIUS Space Talks. The chair unites the expertise of 3 major players in the space industry: the French CNES Center for Space Studies, Thales Alenia Space and Airbus Defense and Space with the high-profile research skills of 2 well-known educational institutions: TBS Business School and Toulouse 1 Capitole University.
- The international academic consortium contributing to the brand-new European Space University project (UNIVERSEH).

Over the years, Toulouse has experienced significant growth in both its economy and population – making it the fastest growing city in France in the last 10 years. With its good quality of life and flourishing job prospects for those in the aerospace & mobility industry, it's not hard to see why so many students want to stay put after graduation! Toulouse has become the hotspot for over 800 aeronautics and aerospace companies, welcoming the likes of Airbus, Air France Industries and CNES (French Space Agency), ATR, Thales, and Safran, among others, as well as innovative research centres. The city also boasts a private-public incubator named Aerospace Valley to look towards high-tech business initiatives including artificial intelligence (AI), self-driving vehicles, drones, and Urban Air Mobility (UAM). Owing to the aerospace crisis, new projects came up on hydrogen, electric aircraft, new space related initiatives, city mobility...





JetBlue Names Carol Clements Chief Digital & Technology Officer

JetBlue announced the appointment of Carol Clements to Chief Digital & Technology Officer, effective April 26, 2021. In this role, Clements will be responsible for the New York-based airline's information systems and technology strategies. She succeeds Eash Sundaram, who retired from JetBlue earlier this year after nearly a decade at the helm of innovation and technology strategy for the airline.

"As we work through the pandemic recovery, technology will play a more important role than ever in our success and it's an area where you can expect to see more investment ahead to the benefit of crewmembers and customers alike," said Robin Hayes, chief executive officer, JetBlue. "Carol will be leading our IT team during one of the most pivotal times for our airline and the industry, and we look forward to having her join our senior leadership team."

Clements comes to JetBlue with more than a decade at Southwest Airlines, where she led the company-wide technology initiative to enable all commercial and operational capabilities for the carrier's first-ever international expansion. During her time at Southwest Airlines, Clements also held leadership roles in e-commerce, reservations and loyalty technology, and business intelligence. More recently, Clements served as chief technology officer for Pizza Hut. Under her leadership, the Pizza Hut team leveraged technology innovation to drive significant increases in digital and mobile sales, deliver a more frictionless and personalized customer experience, and improve restaurant operating efficiency.

Airbus announces changes to the Executive Committee

Airbus SE is announcing the following changes to the Executive Committee led by Chief Executive Officer Guillaume Faury, following approval from the Board of Directors.

These changes come at a new juncture for both commercial aviation and defence activities, with the decarbonisation of the aviation sector becoming a central ambition for our industry, and strategic European defence programmes entering their development phase.

The following changes will be effective from 1st July 2021:

- After more than five years in his role as CEO Airbus Defence and Space and as member of the Airbus Executive Committee, Dirk Hoke has decided to pursue opportunities outside the Company.
- Dirk will be succeeded by Michael Schoellhorn, who joined Airbus in February 2019 as Chief Operating Officer

AIRBUS

and member of the Airbus Executive Committee;

- Michael will be succeeded by Alberto Gutiérrez, currently Executive Vice President Military Aircraft and member of the Airbus Defence and Space Executive Committee since January 2019;
- Alberto will be succeeded by Jean-Brice Dumont, currently Executive Vice President Engineering and member of the Airbus Executive Committee since April 2019;
- Jean-Brice will be succeeded by Sabine Klauke, currently Executive Vice President Engineering, Airbus Defence and Space and member of the Airbus Defence and Space Executive Committee, a position she has held since July 2018;
- Grazia Vittadini, currently CTO and member of the Airbus Executive Committee since May 2018 has decided to leave the company to pursue other opportunities after more than 19 years at Airbus. Sabine Klauke will take over this

responsibility in addition to her new role as Executive Vice President Engineering;

- The succession of Sabine as Executive Vice President Engineering, Airbus Defence and Space will be subject to further notice.

"As we emerge from COVID-19 and look forward to the next phases in the development of our civil and military activities, we are making important changes to the leadership team. I warmly thank Dirk for his leadership at the helm of Defence and Space over the last five years and the achievements obtained under his watch. I also want to sincerely thank Grazia for her key contributions and personal engagement over the last years. I wish them both all the best in their future endeavours," said Guillaume Faury, Airbus CEO.

"I'm now very pleased to welcome Alberto and Sabine to the Airbus Executive Committee, while Michael and Jean-Brice will take on key responsibilities in Airbus Defence and Space. These changes will allow us to further address our challenges and deliver on our ambitions, as well as increasing the "Team Airbus" dynamic with deeper collaboration between our different businesses and functions across borders."



Sanjeev Kumar takes over as Chairman, Airports Authority of India

Sanjeev Kumar, an IAS officer of 1993 batch, Maharashtra Cadre, took over as Chairman of Airports Authority of India. Prior to this, Shri Kumar was working as State Commissioner -GST, Government of Maharashtra.

With rich experience in the field of Infrastructure and Finance, Shri Kumar has served in various ministries and departments of the Government of Maharashtra viz. Water Supply & Sanitation Department, Energy and Industries Department. He has worked as Joint CEO of Maharashtra Industrial Development Corporation (MIDC) and has also been MD of Maharashtra Agro Industries Development Corporation.

He was the CMD of largest electricity distributor company of India, Maharashtra State Electricity Distribution Company Ltd for more than four years and brought it to profit for continuous four years. He implemented large number of public friendly measures in MSEDC, while improving operational and financial efficiency. Shri Kumar has spent more than five years in State Goods Taxation Department in various capacities at the crucial time of introduction of Value Added Tax (VAT) in 2005 and now in GST.

He also has experience of working in Government of India and has worked as Director in Ministry of Power for two years. In addition to this, Shri Sanjeev Kumar worked in Ministry of Housing & Urban Poverty Alleviation as Joint Secretary & Mission Director for Housing for all projects. During his tenure as the Mission director for Prime Minister AwasYojna (PMAY), he designed and launched the prestigious scheme in that capacity.

Walsh becomes new IATA Director General

Willie Walsh has officially taken on the role of Director General of IATA. He succeeds Alexandre de Juniac. "I am passionate about our industry and about the critical work that IATA does on behalf of its members, never more so than during the COVID-19 crisis," said Walsh. "IATA has been at the forefront of efforts to restart global connectivity, including developing the IATA Travel Pass. Less visible but of equal importance, airlines continue to rely on IATA's financial settlement systems, Timatic and other vital services to support their day-to-day operations. I am grateful to Alexandre for leaving behind a strong organization and a motivated team. Together, the IATA team is absolutely focused on restoring the freedom of movement that airlines provide to billions of people around the world. That means your freedom to visit friends and family, to meet critical business partners, to secure and retain vital contracts, and to explore our wonderful planet.

"In normal times over four billion travelers depend on aviation each year and the distribution of vaccines has put the value of efficient air cargo in the spotlight," Walsh continued. "Airlines are committed to delivering safe, efficient, and sustainable services. My goal is to ensure that IATA is a forceful voice supporting the success of global air transport. We will work with supporters and critics alike to deliver on our commitments to an environmentally sustainable airline industry. It's my job to make sure that governments, which rely on the economic and social benefits our industry generates, also understand the policies we need to deliver those benefits."

Walsh was confirmed as IATA's 8th Director General by the 76th IATA Annual General Meeting on 24 November 2020. He joins IATA after a 40-year career in the airline industry. Walsh retired from the International Airlines Group (IAG) in September 2020 after serving as its CEO since its inception in 2011. Prior to that he was CEO of British Airways (2005-2011) and CEO of Aer Lingus (2001-2005). He began his career in aviation at Aer Lingus in 1979 as a cadet pilot.



Boeing Announces Leadership Updates

The Boeing Company announced that its Board of Directors has extended the company's age-65 standard retirement to age 70 for President and Chief Executive Officer (CEO) David L. Calhoun. Mr. Calhoun, 64, has served as Boeing's President and CEO since Jan. 13, 2020.

"Under Dave's strong leadership, Boeing has effectively navigated one of the most challenging and complex periods in its long history," said Boeing Chairman Larry Kellner. "His dedication to renewing the company's commitment to safety, quality and transparency has been critical in building regulator and customer confidence as Boeing returns the 737 MAX to service. And, in the face of unprecedented challenges brought on by the global pandemic, he has taken proactive actions to ensure Boeing remains strongly positioned for the recovery in the aviation industry. Given the substantial progress Boeing has made under Dave's leadership, as well as the continuity necessary to thrive in our long-cycle industry, the Board has determined that it is in the best interests of the company and its stakeholders to allow the Board and Dave the flexibility for him to continue in his role beyond the company's standard retirement age."

While the Board's action extends the mandatory retirement age for Mr. Calhoun to April 1, 2028, there is no fixed term associated with his employment. Boeing also announced that Executive Vice President, Enterprise Operations and Chief Financial Officer Gregory D. Smith has decided to retire from the company, effective July 9, 2021. Boeing is conducting a search for Mr. Smith's successor.

Mr. Calhoun said, "Greg is a remarkable business leader and we will always be thankful for his many contributions to Boeing. His stewardship of the company's financial position for nearly a decade, and his leadership during the severe challenge our industry has faced as a result of the global pandemic, have been essential to positioning Boeing for a bright future. As part of these efforts, he led the largest bond offering in the company's history and launched a



comprehensive transformation program that will leave our business stronger and more resilient. Greg has also driven Boeing to be a better and more competitive company through his oversight of enterprise operations, sustainability, performance and strategy. He leaves a legacy of leadership and lasting impacts over his 30-years with Boeing. I'm also grateful for Greg's commitment to support the upcoming transition, and for his counsel as we select his successor."

Mr. Smith said, "Boeing is one of the world's greatest companies. I could not be prouder of the 140,000 people who work hard every day to deliver on our promises to all stakeholders and live our foundational values. With the company well positioned going forward, the timing is right for me personally to begin a new chapter outside of Boeing. I will always cherish and be grateful for the experiences I have had, and the relationships I have made, in my thirty years at Boeing."



Supervisory Board early extends Executive Board mandate of Soeren Stark

Lufthansa Technik AG early appointed Soeren Stark as Chief Operations Officer (COO) and Accountable Manager of Lufthansa Technik for further five years until 31 December, 2026.

Soeren Stark has been member of the Executive Board since January 2019. He is responsible for Technical Operations, Logistics and IT. As the "accountable manager" within the meaning of EASA Part 145, Soeren Stark is the point of contact for the aviation authorities on all matters relating to the maintenance and manufacturing operations of Lufthansa Technik AG.

Soeren Stark has held various positions within Lufthansa Group since 2001. From 2016 until 2018, he was responsible for Operations at Lufthansa Cargo as member of the Executive Board.

IndiGo introduces '6EBagport' for door-to-door baggage transfer service, in collaboration with CarterPorter

In line with its vision to provide one-stop shop services to its customers, India's leading airline - IndiGo - has partnered with CarterPorter, an on-demand platform that connects the airport to doorstep to launch '6EBagport', to provide door to door baggage delivery service. The airline has commenced the service from April 1, 2021 in New Delhi and Hyderabad and will subsequently launch it in Mumbai and Bengaluru for delivery to and from home and airport. The facility will enable passengers to travel worry-free as CarterPorter will transfer their baggage contactless from one destination to another with added assistance inside the terminal. The service starts at a nominal rate of INR 630 for one way and passengers can book the service from the comfort their home.



Mr. Sanjay Kumar, Chief Strategy and Revenue Officer, IndiGo said, "We are continuously striving to enhance our customer service and this collaboration is a step further towards providing a one-stop hassle-free experience. The service will bring relief to customers who may want to travel with additional baggage from home to airport or would like to go for a meeting directly from airport without carrying bags. Our partnership with CarterPorter will ensure that our customers have a seamless experience as their baggage gets transferred door to door while they fly onboard our lean, clean flying machine"

Mr. Harsha Vardhan, CEO, CarterPorter said, "We are elated to partner with India's leading airline, IndiGo, as we take their customer journey to next level by providing personalized baggage porter for a door-to-door service. In addition to shorter wait times at the airport, the service will also bring relief to people who seek convenience and need to have a baggage free passage from one city to another. IndiGo's ideology of providing hassle-free customer experience is in line with our service pillars and we look forward to serving IndiGo customers."



Silk Way West Airlines Orders Five Boeing 777 Freighters

Silk Way West Airlines announced the private cargo operator will expand its international network with an order for five 777 Freighters. The deal marks the first

purchase of the long-range, high capacity twin-engine freighter in the Caspian region and Central Asia. The airplanes will enable the airline to increase its capacity to meet growing cargo demand around the globe.

"This deal is an incremental part of our fleet renewal and our commitment to meet our customers' expectations. I am confident that the acquisition of new freighters will further strengthen our leading position on the global air freight market for the next 15 to 20 years," said Zaur Akhundov, Silk Way

Group president.

Silk Way West Airlines and Boeing leaders announced the agreement during a signing ceremony in Baku that included Akhundov; Rashad Nabiye, Minister of Transport, Communications and High Technologies of Azerbaijan; and Earle D. Litzenberger, U.S. ambassador to Azerbaijan, as well as Stan Deal, president and CEO of Boeing Commercial Airplanes.

"Silk Way West Airlines has been rapidly expanding the geographic reach of its network. With the global air freight market forecasted to grow more than 60% over the next 20 years, this new order bolsters their ability to meet trade and e-commerce demand in the Commonwealth of Independent States, Europe, the Middle East, Asia and North America," said Deal. "We are honored to partner with them and look forward to introducing the market-leading efficiency and capability of the 777 Freighter to its fleet of 747 Freighters."

Celebi Aviation appoints Kamesh Peri as new CEO at Celebi Delhi Cargo

Celebi Aviation announced the appointment of Kamesh Peri as chief executive officer of Celebi Delhi Cargo effective March 15, 2021.

"Kamesh is a highly seasoned professional with 30 years of senior leadership experience in the aviation industry in different geographies spanning South Asia, the Middle East, Europe, Africa and North America. His former experience has been with reputable organizations like Lufthansa Cargo AG & Menzies Aviation and as a consultant for large clients in the aviation business, providing advisory, strategy & implementation," said the release.

Kamesh is a graduate from Delhi University with a Bachelor of Commerce (Hons.) and holds an MBA degree from Ashridge Executive Education, Hult International Business School, UK. "He brings in strong hands-on experience in every aspect of cargo business including strategic planning, project management, business development, marketing & sales execution and finance. This vast amount of cargo experience undoubtedly will add value to our Indian business," noted the release.



Big Twin Making Progress and Now Midway through Development

GE Capital Aviation Services (GECAS) and Israel Aerospace Industries (IAI) have now passed the planned halfway phase of the Supplemental Type Certificate (STC) Development Program for the 777-300ERSF. This is a key milestone for "the Big Twin," the GECAS-IAI Co investment for the passenger-to-freighter conversion program of the GE-90 powered 777-300ER, as it now moves beyond planning into the phase of physically modifying the aircraft.

Rich Greener, SVP and Manager of GECAS Cargo, explains "We've begun executing on the dedicated freighter design developed by the IAI and GECAS Cargo team towards manufacturing the kits, and the actual conversion phase under a licensing from Boeing."

"The Big Twin is scheduled to be officially inducted into the IAI 777-300ER P2F Line 1 in Tel Aviv to commence the Prototype Conversion towards end of June 2021," says Yosef Melamed, IAI EVP and General Manager of Aviation Group. "This is an exciting milestone for the Big Twin freighter program."

After extensive planning and preparation, the STC Development Program has already completed the Critical Design Review (CDR) and subsequent Design Freeze of the 777-300ERSF. The prototype 777-300ER (MSN

32789) was delivered to IAI's facility in Tel Aviv by GECAS in June of last year — a full six months ahead of the initial timeline. Since delivery, ground and flight tests have been completed as the prototype aircraft travelled between Tel Aviv and the United States. The aircraft has now returned to Tel Aviv to enter its pre-conversion preparation phase.

A new passenger to freighter conversion program requires significant planning and preparation before modifications — such as the addition of the Main Deck Cargo Door, freighter lining, window plugs, a modified crew compartment, a reinforced fuselage, an all-new floor structure to support the 222,000 Lbs. MSP, a 9G rigid cargo barrier, and a powered cargo loading system — can get underway. Moreover, obtaining the STC requires satisfying stringent requirements of civil aviation authorities.

As announced in October 2020, Kalitta Air, which has provided scheduled and on-demand freighter charter service for twenty years, is the launch operator for the Big Twin.

"By leveraging our fleet of passenger aircraft to provide freighter conversion feedstock, we're delivering on our strategy to meet the need for replacement of retiring freighters and increased demand for dedicated cargo capacity," Greener adds, noting "We see the Big Twin meeting requirements of the air cargo industry for the next 20 years, so entering this next phase is thrilling."

EDIFly PARTNERS WITH CARGOFLASH INFOTECH FOR ADVANCED ENCRYPTED MESSAGING



CargoFlash Infotech, one of the leading Technology and Business Solution providers in India, has partnered with the Luxembourg-based EDIFly, providing innovative messaging software for the aviation and logistics sectors. Starting April 2021, CargoFlash has embedded the technology of EDIFly into its cloud-based, digital platform to enable free, encrypted messaging for its Air Cargo Management solutions. With this partnership, CargoFlash can now enable all users of the advanced EDIFly technology to benefit from the free, web-based exchanges with stakeholders in ground handling and warehouse management, airline trucking, forwarding, logistics, cargo community systems and even governments, for that matter.

The implementation is completely seamless for CargoFlash's clients as EDIFly relies on the same IATA addresses, already in use by the legacy aviation messaging providers, including SITA and ARINC. With this recent association, EDIFly shall add value to the exchanges of CargoFlash's communication as there is an instant proof-of-delivery through a digital signature, allowing complete process control for its business partners. Conceptualised by a team of Air Cargo domain's veterans and experts, having over 500 years of combined experience, the next-generation 'nGen' by CargoFlash is an end-to-end Air Cargo Management System delivering solutions to the global Aviation Cargo Industry. Through the 'nGen', the company caters solutions to Airline Carriers, GHAs, GSSAs and Forwarders. 'nGen' provides instant, integrated and seamless solutions to the Air Cargo industry for reservation, revenue management and accounting, D2D and warehouse management.

"Some clients on the comprehensive nGen management platform by CargoFlash work without a connection to legacy Type B providers while relying on the global IATA messaging standards and end-to-end encryption instead of using unsecured email for mission-critical communication. With the quick implementation and seamless integration, we aim to rapidly spread the disruptive concept that

EDIFly can bring to the global aviation industry," says Ingo Roessler, Chief Commercial Officer, EDIFly. "Our software handles current and future messaging standards (Type B, Type X, EDIFACT) and connects with the partners without legacy circuits or fixed links. With EDIFly, the affiliates will experience a lower cost-base and improved data security compared to that of the legacy providers," he adds.

"As the aviation cargo moves towards cloud-based computing for mission-critical applications across all areas, CargoFlash is thrilled to have EDIFly come on board for an advanced messaging system. Many of our airline clients, including Garuda Indonesia and Raya Airways, already enjoy the free and encrypted messaging technology provided by EDIFly. With this association, we aim to reach out to all our existing as well as potential stakeholders, and effectively provide seamless solutions to the global Air Cargo market," adds Gautam Mandal, Director-Products, CargoFlash.

IndiGo signs LOI to bring Freighters on board

Building on the success of the CarGo business in recent years, IndiGo - India's leading carrier - has initiated a freighter programme and is in the process of sourcing 4 A321ceo aircraft each of which will be converted from passenger jets to a full freighter configuration. A Letter of Intent has been signed with a lessor for two aircraft already, and IndiGo expects to reach agreement for the next two shortly. The initiative will make best use of the natural synergies that IndiGo offers, using the same pool of pilots and engineers that fly and service its current fleet.

The A321P2F (Passenger-to-Freighter conversion) is the most efficient narrow-bodied freighter available, offering 24 container positions and supporting a payload of up to 27 tonnes. These are being converted through a programme involving ST Engineering and Airbus with their joint venture, Elbe FlugzeugWerke (EFW).

IndiGo is expected to take the delivery of its first freighter in the first half of 2022, which will be used for both domestic and regional missions. The remaining three aircraft in the initial commitment are expected to arrive within a year or so from arrival of our first freighter, and further aircraft may be sourced depending on market development.

Mr. Ronojoy Dutta, Chief Executive Officer and Wholetime Director, IndiGo said, "CarGo has been a success story over the last year, scaling new heights and creating new records, but our belief in the cargo business goes beyond the special circumstances right now. IndiGo was already the largest carrier of cargo in domestic India before Covid-19, and we expect the market to continue to grow after the pandemic. Our investment in the Airbus Freighter Programme will help strengthen our product and services in the segment, and not only help accelerate our own business recovery but also be a strong engine of economic growth for the country."

Blue Dart certified as a Great Place to Work for the 11th Year



Blue Dart, South Asia's premier express air and integrated transportation & Distribution Company and a part of the Deutsche Post DHL (DPDHL) Group, has been certified as a Great Place to work once again, by the Great Place to Work® Institute for the Financial Year 2021-2022. A jewel that has been an integral part of Blue Dart's crown for 11 years now, has been added to Blue Dart's roster of accomplishments once again.

With the lockdown diaries continuing to stir up a storm in a volatile, uncertain, complex and ambiguous (VUCA)



environment, Blue Dart has truly actioned upon its foundational value of keeping its 'People First'. The organization has launched a number of initiatives keeping the health and safety of its employees at the forefront of its operations while ensuring that all their teams across India feel stability on the work front.

Balfour Manuel, Managing Director, Blue Dart commented on the certification saying, "Over the last year, the world has witnessed a tsunami of challenges posed to industries across verticals. Blue Dart's strength lies

in our people force, a statement that was proven, once again, during this period; our people went above and beyond to deliver exceptional service quality at every touchpoint and this remains our market differentiator. Being recognized as a Great Place to Work reinforces our 'people first philosophy'; it goes to show that if the organization recognizes the needs of its employees, addresses their concerns and rightfully gives back to the employee, the employee will give back to the organization, three-fold; the DPDHL Group coins the phrase 'Respect and Results' denoting exactly this.

At Blue Dart, this has been a tried and tested success strategy through all our 37 years of operations. It is because of this, that our organization continues to foster a culture where the average tenure of an employee is at 18 years, signifying a strong relationship between the employee and the organization. We are thoroughly delighted to see Blue Dart certified as a Great Place to Work for the 11th Year!" , he added.

Rajendra Ghag, Chief Human Resources Officer, Blue Dart continues, "We are truly honoured to be certified as a Great Place to Work for the 11th Year. Over the course of the last Financial Year (FY2020-21), the pandemic played a central role in all our lives whether that be at an organizational or an individual level. Blue Dart understands its people and we knew that providing guidance, job stability, financial stability and introducing measures to reduce the risk of contagion, were key to ensuring that our people felt safe and secure at the workplace. In light of this, compensation was given in time along with merit-based increments, a special COVID Bonus was provided to employees, to reward the outstanding work that had been done even amidst a raging pandemic.

To ensure that the health and safety of the frontliners as well as our customers remain unscathed, Blue Dart introduced the Contact Less Delivery Service. The company immediately announced specific COVID related health benefits and actioned Employee Assistance Program (EAP) that focused on providing a positive outlet to employees for all mental health-related issues as well as any day to day issues that may affect their quality of life.", he added.



GMR ANNOUNCES LAUNCH OF HYDERABAD AEROCITY

Infrastructure major, GMR Group announced launch of GMR AeroCity Hyderabad as part of its vision to provide world-class infrastructure in India. GMR AeroCity Hyderabad is unfolding a landmark urban form that is competitive, attractive, and sustainable. Being developed as an urban landscape with an International airport at its core, it brings speed, agility and connectivity as unique business propositions.

GMR AeroCity Hyderabad offers a gateway airport with growing air connectivity, passenger traffic and best in class logistics hub with smart technologies in place.

Spread across 1500 acres, GMR AeroCity Hyderabad is envisaged to be an integrated mixed-use development, which includes key ports and establishments, viz. Business Park, Retail Park, Aerospace and Industrial Park, Logistics Park, Hospitality etc. It also provides complete living and working experience, with support infrastructure including schools, healthcare, rental accommodation, leisure & entertainment.

Identifying the gap in quality leisure, retail, fun and entertainment avenues, GMR Group is conceptualising a Lifestyle destination retail project "GMR Interchange" to enable LIVE/WORK/PLAY at the GMR AeroCity Hyderabad campus. Various entertainment avenues under proposal include a Cinema and a Family Entertainment Centre to be part of the Interchange project. A Hospitality district is also being planned to cater to the multitude of demand coming from various users of AeroCity.



GMR Business Park housed in GMR AeroCity Hyderabad offers varied office real-estate solutions like ready to move-in Grade-A offices and Built-to-Suit Campuses. It offers best in class infrastructural support for the prospective and existing businesses viz. redundancies built in Telecom, Power & IT infrastructure for 24/7 operations; dedicated power link-up with the state grid for reliable power supply, round the clock three-tier security system comprising of RAXA, State police and CISF, express connectivity with the city; pollution free and well-planned ecosystem.

A Notified Area Committee (NAC) - which is a one-stop clearance window for all building plan approvals - also contributes

towards ease of doing business. It focuses on sustainable development using Green Technologies and new generation Smart digital infrastructure along with quality physical infrastructure.

Spanning around 1 Million sq.ft of leasable area, spread over four Towers (being developed in phases, with Tower 1 fully occupied and Tower 2 ready for occupancy), GMR AeroCity Hyderabad has been seamlessly designed for the future business corridor. The Business Park is an ideal choice for DR, BCP sites, Grade A offices, Network Planning offices, Sales Office, R&D etc.

The facilities such as food court/ gymnasium/ retail bank branch/proposed

health centre and an airport public plaza will ensure that employees have all social amenities with in their office campus making it a highly enriching work environment for the employees.

Well connected with an eight-lane express way and an elevated corridor with the primary and secondary business districts of Hyderabad, GMR Business Park is strategically located with unparalleled local and global connectivity. In addition, the Airport is currently connected by more than 150 buses round the clock, and soon will be connected via an express Metro system to the city.

"Hyderabad AeroCity is creating a paradigm shift in the way of doing business in India. It offers connected, smart and sustainable workspaces with optimum leasing depths to maximize workspace design efficiency. Being part of Airport ecosystem, which has won many accolades over the years from national & international bodies for its service and infrastructure superiority and consistency, Hyderabad AeroCity also provides unparalleled ease of doing business to its trusted partners, who love to focus on their core business, leaving behind issues of infra, facilities, security etc. Decentralised developments like the Hyderabad AeroCity is a perfect example of a thoroughly master planned development to efficiently handle the teething issues and enable the city users to experience a safe & rewarding Work & Living environment," said Mr. Aman Kapoor, CEO, GMR Airport Land Development (ALD).



ALH Dhruv Demonstrates Deck Operations Capabilities in Ship-borne Trials



HAL's Advanced Light Helicopter Dhruv Mk III MR has successfully demonstrated its deck-operations capabilities that include landing on deck, folding of blades and storing the helicopter inside the onboard

hangar. The recently concluded ship-borne trials off Chennai coast in collaboration with the Indian Coast Guard also covered maintenance activities inside the hangar and on the deck, hot refueling with engines

running on the deck. The helicopter is equipped with the most modern and reliable Shakti engines and an advanced glass cockpit. HAL had recently delivered ALH Dhruv Mk III MR to Indian Coast Guard as part of its 16 ALH Contract.

"These trials have proven the capability of ALH Dhruv to carry out extended operations from ships. Some of the missions that were successfully executed were surveillance, search and rescue, antipollution to address oil spillage, etc. With the successful demonstration of these capabilities like blade folding, stowage, the helicopter is now ready to be fielded for operations," said Mr. R. Madhavan, CMD, HAL.

Dhruv Mk III MR is equipped with the most modern surveillance radar that can detect and identify ships and boats up to a range of 120 nautical miles to enable the Indian Coast Guard in its duty to secure the nation from threats. Coupled with an electro-optical sensor that can closely monitor even the smallest of the vessels at distances as far as 30 nautical miles, ALH Dhruv will boost the capabilities of the Indian Coast Guard.



DRDO conducts maiden trial of Python-5 Air to Air Missile

Tejas, India's indigenous Light Combat Aircraft, added the 5th generation Python-5 Air-to-Air Missile (AAM) in its air-to-air weapons capability on April 27, 2021. Trials were also aimed to validate enhanced capability of already integrated Derby Beyond Visual Range (BVR) AAM on Tejas. The test firing at Goa completed a series of missile trials to validate its performance under extremely challenging scenarios. Derby missile achieved direct hit on a high-speed maneuvering aerial target and the Python missiles also achieved 100% hits, thereby validating their complete capability. The trials met all their planned objectives.

Prior to these trials, extensive missile carriage flight tests were conducted at Bengaluru to assess integration of the missile with aircraft systems on board the Tejas, like Avionics, Fire-control radar,

Missile Weapon Delivery System and the Flight Control System. At Goa, after successful separation trials, live launch of the missile on a Banshee target was carried out. Python-5 missile live firing was conducted to validate target engagement from all aspects as well as beyond visual ranges. In all the live firings, missile hit the aerial target.

The missiles were fired from Tejas aircraft of Aeronautical Development Agency (ADA) flown by Indian Air Force (IAF) Test pilots belonging to National Flight Test Centre (NFTC). The successful conduct was made possible with years of hard work by the team of scientists, engineers and technicians from ADA and HAL-ARDC along with admirable support from CEMILAC, DG-AQA, IAF PMT, NPO (LCA Navy) and INS HANSA.

RakshaMantri Shri Rajnath Singh has congratulated the teams of DRDO, ADA, Indian Air Force, HAL and all involved in the trial. Secretary Department of Defence R&D and Chairman DRDO Dr G Satheesh Reddy appreciated the efforts of scientists, engineers and technicians from various organisations and industry.

Norway's First P-8A Aircraft Moves into Assembly

The first P-8A Poseidon fuselage for Norway arrived today at Boeing facilities in Renton, Washington, from Spirit AeroSystems in Wichita, Kansas, marking a major milestone in the production of the first of five Poseidons for the Royal Norwegian Air Force.

A derivative of the Boeing 737 Next-Generation commercial aircraft, the P-8 is first assembled at Boeing Commercial Airplanes' 737 production line, where the fuselage receives additional wiring and systems needed to support military components, equipment and operation. The aircraft is then delivered to Boeing's Defense, Space & Security unit for the installation of military systems, testing and delivery to military customers.

"Boeing uses a proven in-line production process to efficiently build the aircraft," said



Christian Thomsen, P-8A Europe program manager. "Implementing established best practices and common, commercial production-system tools enables the team to reduce flow time and cost while ensuring quality and on-time delivery to our customers."

Norway is expected to receive its first P-8 later this year. In total, five P-8s will eventually replace Norway's current fleet of six P-3

Orions and three DA-20 Jet Falcons and will provide advanced capabilities to maintain situational awareness in neighboring waters on and below the surface of the ocean.

To date, Boeing has delivered 104 P-8 aircraft to the U.S. Navy and customers in Australia, India and the United Kingdom.

Collins Aerospace reaches significant milestone in its Iridium Certus® development



Collins Aerospace has reached another critical milestone in the development of its higher bandwidth Iridium Certus® airborne satellite communications (SATCOM) system. Recently, Collins Aerospace was able to successfully connect and transmit data to an orbiting Iridium® satellite using the Iridium Certus service utilizing a High

Gain Antenna (HGA). A similar transmission was recorded last August with Collins Aerospace's new Active Low Gain Antenna (ALGA). This puts Collins Aerospace among the first to successfully connect with both its Iridium Certus systems. Collins Aerospace is a Raytheon Technologies business (NYSE: RTX).

Collins Aerospace's two SATCOM solutions, currently in development, will provide customers with faster speeds, lower weight and smaller antenna footprint than legacy SATCOM systems allowing for minimum drag and lower power usage. This will provide operators with additional options for use in both the cockpit for safety services and in the cabin for passenger entertainment.

"This marks our second major milestone in our Iridium Certus development in only six months and is a testament to the hard work and expertise we have dedicated to the goal of bringing our customers the uninterrupted and secure data feeds they need to operate most efficiently," said Leigh Parker, Vice President of Avionics Engineering for Collins Aerospace. "We are now one step closer to rolling out what we believe will be the premier seamless SATCOM experience."

Collins Aerospace's solutions will be available to operators in 2022 and will include all airborne hardware for the new systems, including the Satcom Data Unit (SDU), SDU Configuration Module and the antennas — either ALGA or HGA — depending on the operator's bandwidth requirements.



Boeing Delivers Next F-15EX Ahead of Schedule

Boeing-led industry team officially delivered a second F-15EX fighter aircraft to the U.S. Air Force earlier than the contract requirement. The result of a collaboration across industry, the U.S. Air Force and the Air National Guard, the F-15EX is a ready-now replacement for the F-15C that includes best-in-class payload, range and speed and an all-new digital infrastructure.

"Moving from contract award to delivery in a matter of months enables the U.S. Air Force to get a head start on flight testing and demonstrates our commitment to exceeding expectations," said Prat Kumar, Boeing vice president and F-15 program manager. "Along with state-of-the-art avionics and survivability suite, the new F-15EX includes almost 3 miles of high-speed digital data bus to enable open architecture, which will keep it evolving ahead of threats for decades."

The second F-15EX arrived at Eglin Air Force Base to begin testing with the first EX that was delivered last month.

In July 2020, the U.S. Air Force awarded Boeing an Indefinite Delivery/Indefinite Quantity contract for up to 200 F-15EXs to replace the undefeated but aging F-15C. The Air Force has announced initial basing locations in Florida and Oregon.

"Delivering the F-15EX to defend our freedom is a source of intense pride for the Boeing and industry team," said Kumar.

Airbus A400M conducts major helicopter refuelling certification campaign

The Airbus A400M new generation airlifter has successfully conducted a major helicopter air-to-air refuelling certification campaign, completing the majority of its development and certification objectives. Airbus Defence and Space aims to achieve full helicopter air-to-air refuelling certification later this year with the conclusion of all mandatory night operation trials.

The flight tests, performed in coordination with the French Armement General Directorate (DGA), involved operations with two French Air Force H225M helicopters. The campaign took place in day and night conditions over the west coast of France at between 1,000 ft and 10,000 ft and flight speeds as low as 105 knots. During those flights, a total of 81 wet contacts and transfers of 6.5 tonnes of fuel were achieved, which included simultaneous refuelling of two helicopters for the first time. The tests confirmed the positive results of the dry and wet contact operations conducted in 2019 and 2020.

Helicopter air-to-air refuelling is a unique military capability and key for Special Forces operations, involving aircraft with different flight profiles and sharing a very limited common flight envelope, requiring close formation flying patterns at low altitudes and night time conditions.

With this capability the A400M becomes one of the few tanker aircraft in the world capable of such operations. The multi-purpose H225M is one of the few helicopters in the world capable of in-flight refuelling, extending the standard 700 NM range by up to 10 hours flight time.





JUICE Jupiter probe's first taste of space

JUICE, the JUpterICy moons Explorer mission led by the European Space Agency (ESA), has left Airbus' satellite integration centre in Friedrichshafen (Germany) and is now on its way to the Large Space Simulator (LSS) chamber of the European Space Agency (ESA) in Noordwijk (Netherlands) for its first taste of space. Over the next 12 months, starting with 31 days in the vacuum chamber in the LSS, the spacecraft will be exposed to the environmental conditions of space and will have to prove it is ready for its journey via Venus and Mars to Jupiter and its mission in the Jovian system.

Since its arrival 12 months ago at the Airbus site, JUICE has been kitted out with its final components including harness, power electronics, on-board computer, communication systems, navigation sensors, thermal hardware and crucially its scientific instruments. At the ESA test centre at ESTEC in Noordwijk, the spacecraft will undergo a full environmental test campaign including verifying its thermal control system and its electrical elements.

Together with their ESA colleagues, a total of 120 Airbus space engineers and subcontractors will prepare and carry out the tests. In July this year, the spacecraft will head for Airbus in Toulouse for flight configuration assembly, before the final environmental tests including electro-magnetic compatibility (EMC), mechanical, deployment, and propulsion. It will then be shipped to the launch site in Kourou, French Guiana.

The 6.2 ton JUICE spacecraft will set off in 2022 on its near 600 million-kilometre-long journey to Jupiter. The spacecraft will carry 10 state-of-the-art scientific instruments, including cameras, spectrometers, an ice-penetrating radar, an altimeter, radio-science experiment, and sensors to monitor the magnetic fields and charged particles in the Jovian system. JUICE will complete a unique tour of the Jupiter system that will include in-depth studies of three potentially ocean-bearing moons with liquid water, Ganymede, Europa and Callisto.

JUICE will spend more than three years in the Jupiter system, collecting data to provide answers on the conditions for planet formation and the emergence of life. It will spend nine months orbiting the icy moon Ganymede analysing its nature and evolution, and its potential habitability.

Boeing's 1st Core Stage for NASA's Space Launch System Arrives at Kennedy Space Center

A Boeing-built rocket core stage for NASA's Space Launch System was unloaded from a barge at the agency's Kennedy Space Center and moved to the Vehicle Assembly Building.

The 212-foot (65-meter) core stage will be stacked with a Boeing/United Launch Alliance Interim Cryogenic Upper Stage, two solid rocket boosters, a Launch Vehicle Stage Adapter and the Orion spacecraft. Teams will prepare the SLS to launch Orion on an uncrewed mission around the moon and back called Artemis I.

The first in a series of increasingly complex missions, Artemis I will test the Orion spacecraft and SLS rocket as an integrated system ahead of crewed flights to the moon for sustained exploration. SLS is the only rocket that can send Orion, astronauts and cargo to the moon in a single mission.

Boeing is the prime contractor to NASA for the SLS core and upper stages and avionics. The company is joining major elements for the Artemis II core stage now at NASA's Michoud Assembly Facility in New Orleans, while manufacturing core stage elements for Artemis III. The company also is working on evolvable capabilities for the rocket system such as the Exploration Upper Stage, which is entering production at Michoud.



Airbus and TNO to develop aircraft laser communication terminal

Airbus and the Netherlands Organisation for Applied Scientific Research (TNO) have launched a programme to develop a laser communication terminal demonstrator for aircraft, known as UltraAir.

The project, which is co-financed by Airbus, TNO and the Netherlands Space Office (NSO), is part of the European Space Agency's (ESA) ScyLight (Secure and Laser communication technology) programme. It covers the design, construction and testing of the technology demonstrator. Laser communication technologies are the next revolution in satellite communications (satcom), bringing unprecedented transmission rates, data security and resilience to meet commercial needs in the next decade.

The UltraAir terminal will be capable of laser connections between an aircraft and a satellite in geostationary orbit 36,000 km above the Earth, with unparalleled technology including a highly stable and precise optical mechatronic system. The technology demonstrator will pave the way for a future UltraAir product with which data transmission rates could reach several

gigabits-per-second while providing anti-jamming and low probability of interception. In this way UltraAir will not only enable military aircraft and UAVs (Unmanned Aerial Vehicles) to connect within a combat cloud, but also in the longer term allow airline passengers to establish high-speed data connections thanks to the Airbus' SpaceDataHighway constellation. From their position in geostationary orbit, the SpaceDataHighway (EDRS) satellites relay data collected by observation satellites to Earth in near-real-time, a process that would normally take several hours.

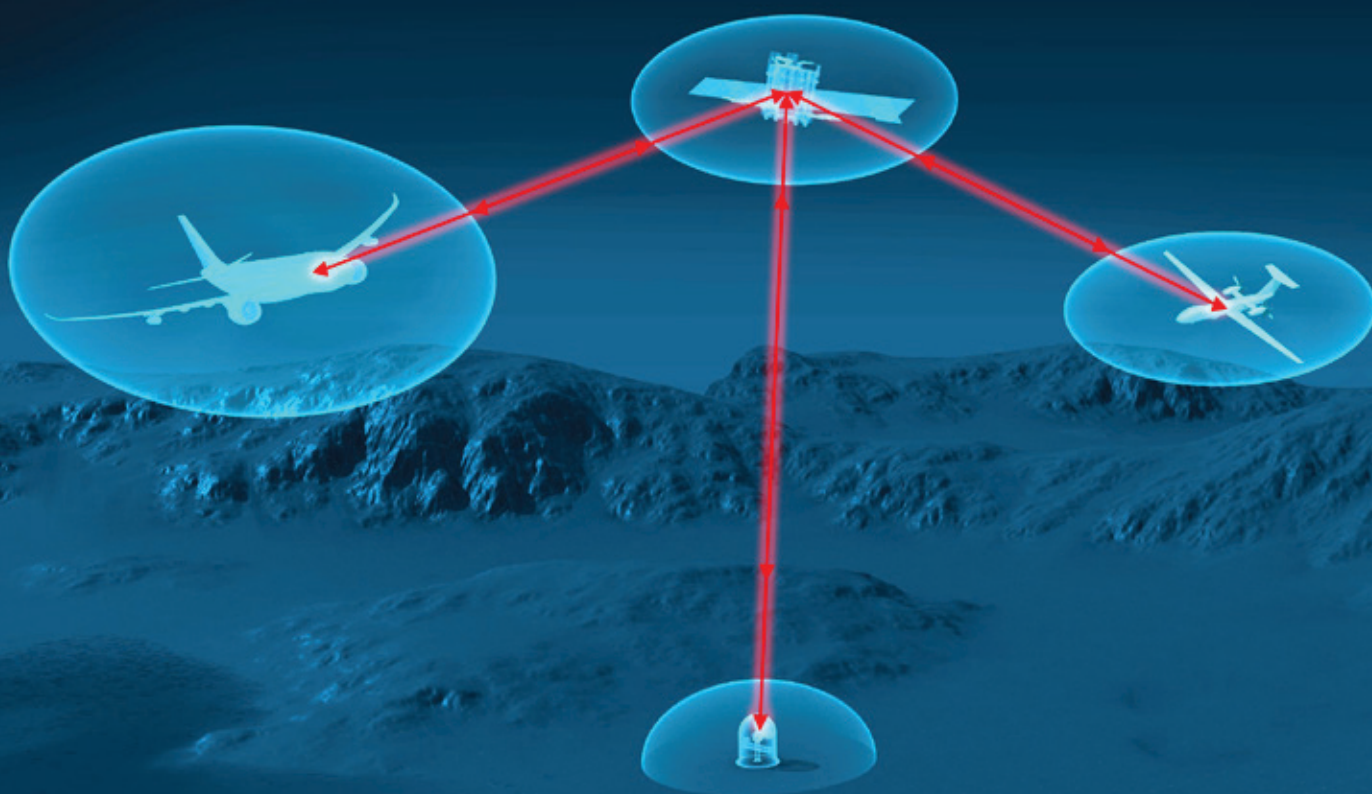
Airbus is leading the project and brings its unique expertise in laser satellite communications, developed with the SpaceDataHighway programme. It will coordinate the development of the terminal and testing on the ground and in the air. As key partner of the project, TNO provides its experience in high-precision optomechanics, supported by the Dutch high-tech and space industry. Airbus Defence and Space in the Netherlands will be responsible for the industrial production of the terminals. Airbus' subsidiary Tesat brings its technical

expertise in laser communication systems and will be involved in all testing activities.

The first tests will take place at the end of 2021 in laboratory conditions at Tesat. In a second phase, ground tests will start early 2022 in Tenerife (Spain), where connectivity will be established between an UltraAir demonstrator and the laser terminal embarked on the Alphasat satellite using the ESA Optical Ground Station. For the final verification, the UltraAir demonstrator will be integrated on an aircraft for flight testing by mid-2022.

As satellite services demand is growing, the traditional satcom radio-frequency bands are experiencing bottlenecks. Laser links also have the benefit of avoiding interference and detection, as in comparison to the already-crowded radio frequencies, laser communication is extremely difficult to intercept due to a much narrower beam. Thus, laser terminals can be lighter, consume less power and offer even better security than radio.

This new programme is a key milestone in the roadmap of Airbus' overall strategy to drive laser communications further, which will bring forward the benefits of this technology as a key differentiator for providing Multi-Domain collaboration for Government and defence customers.





Cessna Citation CJ3 series cements best-selling light jet legacy with 600th delivery

Textron Aviation marked the delivery of the 600th aircraft from the Cessna Citation CJ3 family, the industry's best-selling light jet series. The milestone Cessna Citation CJ3+ was delivered to an unnamed customer in North America.

"Since joining the Citation family, the Citation CJ3 series has proven to be an incredible performer for customers around the world with the connectivity, price, range and efficient operation that puts it at the top of its category," said Lannie O'Bannon, senior vice president, Global Sales and Flight Operations. "The CJ3+ remains a strong performer due to its versatility as COVID-19 limitations have prompted customers to look for alternatives to commercial travel."

This aircraft features a fresh air system to keep cabin air clean, bringing fresh air from outside into the aircraft through the engines. The engines compress and heat the air eliminating pathogens and germs. The air is then cooled and enters the cabin as cold or warm air, depending on passenger preference. The Citation CJ3+ boasts the latest technology in the cabin and cockpit providing both unrivalled comfort and productivity for passengers, and intuitive, efficient operation for either single-pilot operation – perfect for owner-operators – or traditional two-pilot operations.

Deliveries for Beechcraft King Air 360 and 260 aircraft to commence in Brazil with ANAC certification

Textron Aviation has achieved certification from the National Civil Aviation Authority of Brazil (ANAC) for its newest twin-turboprop aircraft models, the Beechcraft King Air 360/360ER and King Air 260, clearing the way for deliveries to begin in country this quarter. "The Beechcraft King Air's operational versatility is its key selling point in Brazil and around the globe," said Marcelo Moreira, vice president of Sales, Latin America. "The King Air is a high-performance turboprop that can operate in almost any environment, from large metropolitan airports to short unprepared strips, which is why the aircraft is so popular in this region of the world."

With nearly 500 King Air turboprops operating throughout the country, Brazil has the second-largest active fleet of King Airs outside of the United States. The aircraft is a popular choice by owners in large metropolitan areas to connect them with remote farms or factories in the interior of the country, as well as reaching vacation getaways or international locations. "The Beechcraft reputation for quality and robustness, along with the combination of efficiency and advanced technology in the cockpit and cabin, ensure the latest King Air models meet nearly all of the needs of an owner with one aircraft," Moreira added.





Bombardier Confirms VistaJet as Customer for Previously Disclosed Order for 10 Challenger 350 Aircraft

Bombardier is pleased to confirm that worldwide fleet operator VistaJet is the customer for a previously disclosed firm order for 10 Challenger 350 business jets. Bombardier announced the sale involving its best-selling Challenger platform on December 23. It was one of the largest biggest jet orders of 2020.

VistaJet, a longtime Bombardier customer, has also taken delivery of its first

two Global 7500 business jets. The flagship Global 7500 business jet elevates the passenger experience with the smoothest ride and a true four-zone cabin designed to be a home and office in the skies. Bombardier recently celebrated the milestone 50th delivery of this unparalleled aircraft, which has the longest range among business jets.

Éric Martel, President and Chief Executive Officer, Bombardier, said: "We are extremely

proud of our long-standing partnership with VistaJet and are thrilled that they have again chosen Bombardier aircraft to support their fleet expansion plans. With unmatched performance and comfort, the Global 7500 and Challenger 350 are the perfect aircraft to support VistaJet's rapid growth as more people turn to business aviation and the enhanced safety and reliability it provides."

Thomas Flohr, Founder and Chairman, VistaJet, said: "It is an incredibly exciting time as VistaJet transforms the architecture of how companies and individuals fly. We continue to see rapid acceleration in new Members, which is driven by corporate and executive demand for our business mobility offerings. Global private aviation networks will be even more vital to support businesses and the economy. The expansion of our worldwide fleet will guarantee our customers full confidence in a consistent flying experience anywhere in the world — offering the best value in the industry through our unique asset-light flight solutions. We remain committed to providing critical support to businesses in this new world — we kept our business steady during 2020 and we are already seeing much increased demand for VistaJet's asset-free solutions in 2021 and beyond."

Falcon 6X Interior Receives another Prestigious Product Design Award

Days after the on-time first flight of the Falcon 6X, the new twinjet is in the spotlight again, winning the prestigious Red Dot: Best of the Best award for its premium cabin design.

Dassault Aviation joins Apple, Porsche, Audi and other famous brands that have been recognized by the coveted Red Dot prize. The Red Dot organization noted that this year it received an unprecedented number of nominations from more than 60 countries for the award, which rewards trailblazing work in product design.

In awarding the prize, the Red Dot committee recognized the exceptional combination of form and function demonstrated by the Falcon 6X's cabin design. The committee determined that the cabin's flowing lines and environmental engineering create a unique, healthful and productive environment offering a new level of personal comfort and space. It was also impressed by the clean, modern lines and layout of the interior and the small touches that particularly delight business jet passengers: easy-to-use fingertip controls, the 6X's innovative overhead galley skylight and mood lighting designed to support natural circadian rhythms.



The Red Dot prize is the second design award Dassault has received for the 6X cabin. In September 2020, the 6X won the International Yacht & Aviation Award sponsored by design et al, the prominent UK design magazine published by The Design Society.

On pace for 2022 service entry, Meanwhile, the Falcon 6X flight test program is gathering momentum as the aircraft proceeds towards its scheduled certification in 2022.

Embraer's Board of Directors will become more global

Pursuant to Embraer's 2021-2025 strategy, focused on growing through global partnerships, innovation, and business diversification, the Board of Directors will include two foreign members of recognized experience in Commercial Aviation in the Strategy Committee this year.

"The aviation sector is in full transformation in the face of several challenges such as the pandemic, the arrival of new entrants, and the development of innovative and sustainable technologies. Embraer is also going through an accelerated evolution process and understands that the incorporation of global members into Board Committees, and furthermore into the next term of the Board, aims at strengthening management by enhancing our global vision and preparing the company for the future," says the President of Embraer's Board of Directors, Alexandre Silva.

The Board of Directors is comprised of 11 effective members, eight of whom are independent. The Brazilian Government, holder of Golden Share, appoints a member, while employees indicate two others. The Board of Directors currently has the support of three advisory committees: Audit, Risks and Ethics Committee, People and ESG Committee, and the Strategy and Innovation Committee.



Gulfstream Flies First Fully Outfitted G700

Gulfstream Aerospace announced the Gulfstream G700™ aircraft dedicated to testing the cabin experience has flown for the first time and now joins the five other test aircraft already in the steadily maturing certification program.

The fully outfitted aircraft took off today and flew 3 hours and 36 minutes, reaching

an altitude of 48,000 feet/14,630 meters and a top speed of Mach 0.935. The test regimen will encompass more than 15,500 test points, validating every facet of the cabin to ensure the utmost in interior comfort and reliability upon customer delivery.

"Flying a fully outfitted aircraft signals significant progress in the G700 flight-test program," said Mark Burns, president, Gulfstream. "The G700 interior is raising the bar for cabin innovation and customization. It provides more space than ever before for Gulfstream's precision-crafted furnishings, more opportunity for personalization and more technology to optimize passenger

health, safety and enjoyment. We look forward to fully testing the cabin before delivering this amazing aircraft to customers."

The first fully outfitted G700 features the industry's only ultragalley, with more than 10 feet of counter space; a dedicated crew space; an entertainment and presentation area; a six-place conference and dining area; and a state room with full-length wardrobe. Interior elements include award-winning seat design; natural stone flooring in the galley and bathrooms; quartz countertops; powered single seats; surround sound; and other bespoke features that come standard on the aircraft.



Piper M600/SLS HALO System with Garmin Autoland Achieves EASA Certification

Piper Aircraft announced that it has been awarded approval from the European Aviation Safety Agency (EASA) for its M600/SLS HALO safety system with Garmin Autoland.

"The European certification is a key milestone for the M600/SLS aircraft, which has garnered substantial interest with the Garmin Autoland system. Additionally, the aircraft features competitive range, payload and safety features along with outstanding acquisition and operating economics", said Ron Gunnarson, Vice President of Sales, Marketing and Customer Support. "Our customers are looking for the kind of unique value proposition only available in the M600/SLS as well as the peace of mind that comes with HALO and the Garmin Autoland system."

As the global pandemic begins to subside, Piper Aircraft will launch a robust European M600/SLS demo tour, visiting all Piper dealer partners as well as key markets later this summer. To date, the M600 SLS has flown more than 100 autoland demos. These demonstrations played a key role in delivering 67 autoland-equipped aircraft in the U.S. market already. The first M600 SLS with HALO Safety System and Garmin Autoland will be officially delivered under European registry in late Q2 of this year.



X-1FBO's Green E-Mission Making Carbon Offsets a simple part of your mission!

X-1FBO, the FBO Management and Payment Processing System software specialist, is making it easy to go green with the launch of their new X-1 Carbon Offset Tool, just ahead of World Earth Day. The tool was developed to enable FBOs have the ability to offer operators a simple, yet speedy method of offsetting CO2 emissions as soon as they check out from the FBO. Working with our partners at TerraPass, X-1FBO now offers a real, quick, inexpensive method for operators to enhance their environmental credentials.

Inside of X-1FBO the Green E-Mission plug-in the X-1 Carbon Offset Tool provides FBOs with the ability to quickly calculate and invoice the amount of carbon off-sets needed for each mission. The X-1FBO Green E-Mission plug-in, which includes a flight leg fuel burn calculator will be provided for free to every FBO using our X-1FBO software.

"At a time when the aviation industry is seeking to play its part in creating a better environment for the future, we felt a responsibility to create the Green E-Mission initiative to help our FBO customers. This is why we now offer the Carbon Offset feature for free in their existing X-1FBO System," said Jim Wiley, Co-Founder and CEO of X-1FBO at the launch.

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