July-September, 2023 INDIA Vol.:7, Issue:46

Blown Lift



Dear Friends,

Although aircraft have flown before that use blown lift, the test aircraft revealed this month will demonstrate Electra's implementation of the aerodynamic concept at full size for the first time. The first flight of the demonstrator will be a key milestone for the company.

The blown-lift concept uses propellers on the leading edge and large flaps at the rear of the wing to blow more incoming air downwards. This enables the aircraft to lift off the ground at slower speeds and therefore use shorter runways.

Blown lift was used in the 1960s on the Breguet 941 STOL transport, but the aircraft was complex—its four turboprop engines mechanically interconnected to ensure continued safe operation in the event of a failure. The 941 could take off in 600 ft. at 48,000 lb., but never saw production. Electra has revisited the concept using DEP to both increase the effectiveness of blown lift and simplify the system by using many small, electric-powered propellers—eliminating the gearboxes and cross-shafts.

"Given the austere environments our aircraft will operate in, not requiring special or new infrastructure at entry into service is fundamental, and a turbine can work with a wide range of widely available fuels," Stewart says. "But we believe in the longterm prospects of new propulsion systems". Electra is working with several partners on the hybrid system for the production eSTOL.

Electra says it holds letters of intent for more than 1,200 aircraft from 32 customers, 70% of which are existing aircraft operators. "We are not our own operator," Stewart says, a reference to the eVTOL market leaders that plan to operate as well as manufacture their Air Taxis." Electra's future eSTOL production aircraft will deliver the operational flexibility of a helicopter with the safety and economics of a conventional fixedwing aircraft.

More on it, in the article given inside.

Happy travels!

Sanjiv Aggarwal

WE HAVE REAL TIME ACCESS TO COMPLETE INVENTORY FOR ALL SERIES OF KING AIR, BEECH CRAFT, HAWKER AND CESSNA AIRCRAFT.

VOLUME: 7

ISSUE: July-September, 2023

PERIODICITY: Quarterly

PUBLISHER: AVITRUE SPARES DMCC

WEBSITE: www.avitruespares.com

EDITORIAL OFFICE: 803, Almass Tower, Dubai Marina-48748 Dubai, UAE

EMAIL: info@avitruespares.com

COPYRIGHT: AVITRUE SPARES DMCC All rights reserved worldwide.

DESIGNED BY: Silenttpartners Inc. www.silenttpartners.com





 $\label{eq:Disclaimer: Copyright @ 2017 Avitrue Spares DMCC, Dubai, All rights reserved throughout the world.$

Articles & material in Avi-News are purely for information purpose. While reasonable care is taken to ensure the accuracy of information by Avi-News, no responsibility can be taken for any error that may have crept up inadvertently. The views expressed in Avi-News do not necessarily reflect those of the Publisher or the Editor.

PASSENGERS CARRIED BY DOMESTIC AIRLINES REGISTERED AN ANNUAL GROWTH OF 36.10% AND MONTHLY GROWTH OF 15.24%

Domestic airlines carried 64 million Passengers during January-May 2023

The Civil Aviation sector in the country has witnessed an impressive growth, with the number of passengers carried by Domestic airlines growing substantially. Based on the traffic data provided by different Domestic airlines, the passenger count reached an impressive milestone of 636.07 lakhs during January-May 2023, reflecting a significant annual growth rate of 36.10%, compared to the corresponding period in the preceding year of Jan-May 2022, during which the passenger count was 467.37 lakhs.

In the month of May 2022, passenger count was 114.67 lakh, which in May 2023 rose to 132.41 lakh, registering a Month-on-Month growth of 15.24%. This consistent growth is a testament to the collective efforts of airlines, airports, and

the Ministry of Civil Aviation in fostering a safe, efficient, and customer-centric aviation ecosystem.

The overall passenger number in May 2023 increased by 3.26 lakhs (2.52%) as compared to April 23.

The notable increase in the volume of passengers demonstrates the strength and durability of India's aviation sector, showcasing the continuous endeavours to improve connectivity and offer convenient travel choices to our country's citizens. The higher load factor of 636.07 lakhs passengers during January – May 2023 suggests a rising demand for air transportation, underscoring the favourable direction of the aviation industry.

Also, the number of complaints decreased in May 2023 vis-à-vis May 2019. In May 2019, a total of 746 passenger related complaints had been received by the scheduled domestic airlines.

Whereas, in May 2023, a total of 556 passenger related complaints had been received by the scheduled domestic airlines.

According to Shri Jyotiraditya M. Scindia, Union Minister of Civil Aviation and Steel,

"The collaborative efforts of all stakeholders have played a crucial role in propelling the growth of the aviation sector and establishing India as a prominent global aviation hub. The consistent expansion of the domestic airline industry and the birth of regional airlines are strengthening our economy, connecting people throughout the nation and ensuring last mile connectivity through the UDAN Scheme. The Ministry remains committed to fostering a favourable environment for the aviation

24X7 AOG RESPONSE TEAM: Shubhesh: 98216 96277, 98216 96278, sales@avitruespares.com industry to flourish and promote sustainable growth while ensuring the highest standards of safety, efficiency, and passenger satisfaction."

This accomplishment is an outcome of the careful and thorough planning,

operational effectiveness, and proactive actions undertaken by the industry. Following the COVID-19 pandemic, airlines have shown resilience by providing smooth and hassle-free travel experiences for passengers, along with improved air services.



040

6 010

A BI-MONTHLY NEWSLETTER

AVI-NEWS



Air India to hire more than 1,000 pilots, including captains and trainers, as the Tata Group-owned airline expands its fleet

The carrier, which was taken over by the Tata Group in January last year, is hiring more than 1,000 pilots, according to an advertisement on Thursday.

"We are offering multiple opportunities and accelerated growth across our A320, B777, B787 and B737 fleet for captains and first officers, as well as trainers," it said, adding that more than 500 aircraft are joining its fleet.

Meanwhile, pilots of Air India have raised concerns about the airline's latest decision to revamp their salary structure and service conditions.

040

010

On April 17, Air India rolled out a revamped compensation structure for its pilots and cabin crew, which has since been rejected by the two pilot unions – Indian Commercial Pilots Association (ICPA) and Indian Pilots Guild (IPG) – on grounds that the airline, in alleged violation of labour practices, did not consult them before finalising the new contracts.

Tata Group has four airlines – Air India, Air India Express, AIX Connect and Vistara, which is a joint venture with Singapore Airlines. The group is in the process of merging Air India Express and AIX Connect as well as Vistara with Air India.

A BI-MONTHLY NEWSLETTER

AVI-NEWS



The development of Ayodhya Airport is expected to be completed by September 2023. The new Airport will be suitable for the operation of A-320/B-737 type of Aircraft and is being developed at the cost of Rs.42 Million USD (approximately).

manana and i manana a

The development work includes an extension of the existing runway from 1500m X 30m to 2200m x 45m for the operation of Code -C type of aircraft under IFR condition, an Interim Terminal Building, an ATC Tower, a Fire Station, Car parking, new Apron for parking 03 nos. Code 'C' type of aircraft. and allied city-side and airside infrastructure.

The New interim Terminal Building having an area of 6250 sqm is equipped to manage 300 passengers during peak hours. Passengers' facilities include 08 check-in-counters, 03 conveyor belts (01 in Departure and 02 in Arrival Hall), Car parking for seventy-five cars & 02 nos. bus parking. The Airport will be PRM (Passenger with reduced mobility) compliant.

The Terminal has been designed to integrate the culture and heritage of Ayodhya, State of Uttar Pradesh, creating a sense of place for the visitors. The façade of Terminal Bldg. (both on the city side & Airside) depicts the temple architecture of the upcoming Ram temple of Ayodhya. The Proposed Terminal Building portrays the Grand Ram Mandir, which will offer a sense of spirituality to the visitors. The architectural elements of the Terminal are proposed to be adorned with Shikhars of varying heights to convey a sense of grandeur to the structure. Along with the varying shikhara, the Terminal will have decorative columns to enhance the fascia of the Terminal Building. The decorative colonnade will offer an immersive experience for the passengers and visitors as the interiors of the New Terminal Building are being designed to be decorated with local art, Paintings & Murals depicting the life cycle of Bhagwan Sri Ram.

Sharing his views on the development work going on at the airport, Sh Jyotiraditya M. Scindia, Union Minister of Civil Aviation and Steel, said that "Development work at Ayodhya Airport showcases Prime Minister Shri Narendra Modi Ji's visionary approach to drive progress in India's infrastructure. This state-of-theart airport symbolises our commitment to enhance air connectivity and promote tourism in the holy city of Ayodhya.



A BI-MONTHLY NEWSLETTER

DGCA Simplifies Process for Grant of Heliport License

The Directorate General of Civil Aviation (DGCA) has simplified the process for the grant of Heliport License. Now the applications for NOC/Clearance to five external organizations can be routed through a single tab in the applicant's eGCA profile.

The Directorate General of Civil Aviation (DGCA) grants Heliport License/ Operational Authorization to the heliports at the surface level as well as at elevated /rooftop of the buildings in compliance with Aircraft Rules and the relevant Civil Aviation Requirements (CARs). Applicants desirous of obtaining a license/ authorization are required to submit an online application to DGCA through the eGCA portal.

Earlier, before submitting the online applications, applicants were required to apply to the following

five organizations through online/ physical mode to obtain NOC/Clearance:

Ministry of Home, Ministry of Defence, Ministry of Environment and Forest, Airport Authority of India, Local Administration

The above process has now been simplified and a separate tab has been provided in the applicant's eGCA profile. The applications for NOC/Clearance to five external organizations can be routed through this tab via the URL link/email of the respective organizations. This has simplified the process for the applicants, and they can now apply for NOC/ Clearances through a single window provided on the eGCA portal.

DGCA signs MoU with European Union Aviation Safety Agency for unmanned aircraft systems & Innovative air mobility



The Directorate General of Civil Aviation (DGCA) India has signed a Memorandum of Understanding (MoU) with the European Union Aviation Safety Agency (EASA) for cooperation in Unmanned Aircraft Systems and Innovative Air Mobility. This MoU will focus on collaboration on unmanned aircraft and innovative air mobility between the two civil aviation authorities.

This collaboration would include cooperation between DGCA and EASA in the areas of development of certification standards and environmental standards and related requirements for the certification and use of unmanned aircraft systems and innovative air mobility operations which includes licensing of personnel, training, air traffic management and infrastructure, including Unmanned Aircraft System Traffic Management (UTM) standards and services. The MoU will also ensure regular information sharing between the two authorities on the technological developments and research in this area and also their respective strategies for outreach to relevant stakeholders. Further, the MoU will result in collaboration in conducting conferences, workshops, training programmers by DGCA and EASA in this area.

The signing of this MoU is expected to result in harmonized standards and accelerated growth of Indian unmanned aviation sector.

During EU-India Aviation Summit held in New Delhi on 20th April 2023, DGCA had signed a letter of intent (LoI) on Unmanned Aircraft Systems and Innovative Air Mobility with the European Union Aviation Safety Agency (EASA).

Virgin Galactic Begins Commercial Suborbital Flight Service

GALACTI

AVI-NEWS

Richard Branson's Virgin Galactic launched its first commercial space flight, sending three Italian researchers, two company pilots and an astronaut trainer on a high-speed thrill ride to the edge of space aboard a winged Rocket plane. Nearly 20 years in the making, Richard Branson-founded Virgin Galactic's inaugural commercial flight Mounted between the twin fuselages of the VMS Eve carrier aircraft, Virgin Spaceship Unity took off from Spaceport America near Las Cruces, New Mexico.

Commanded by Virgin Galactic's Mike Masucci, a retired U.S. Air Force lieutenant colonel, and pilot Nicola Pecile, a former Italian Air Force lieutenant colonel, Unity separated from Eve at an altitude of 45,000 ft. With its 65,000 lb.-thrust hybrid rocket motor firing, the pilots steered the spaceship into what is known as the "gamma turn" manoeuvre to reach the edge of space.

The rocket motor shut down as planned after about 60 sec., leaving Unity to coast to an altitude of some 279,000 ft. At apogee, Unity's four passengers began working on a series of microgravity research experiments and enjoyed a view of Earth set against the black backdrop of space.

Virgin Galactic has sold around 800 tickets for future commercial flights ,600 between 2005 and 2014 for USD 200,000 to USD 250,000, and 200 since then for USD 4,50,000 Each. Movie stars and celebrities were among the first to snap up seats, but the company's program suffered a disaster in 2014 when a spaceplane on a test flight broke apart midair, killing the copilot and seriously injuring the pilot.

Virgin Galactic, which went public about four years ago by merging with a special-purpose acquisition company, hasn't generated significant revenue and isn't profitable. In 2022, it reported a loss of \$500 million and \$2.3 million in sales. The company isn't the only one offering private space trips. Branson's venture is competing in the "suborbital" space tourism sector with American billionaire Jeff Bezos's company Blue Origin, which has already sent 32 people into space.

According to Virgin Galactic, the company's next scheduled commercial space flight, Galactic 02, is planned in August, and monthly flights to space are expected to be rolled out after that launch.

Electra Rolls Out Blown-Lift eSTOL Demonstrator



Electra Aero has built a technology demonstrator vehicle that it will use to complete the development of its hybrid-electric short takeoff and landing (eSTOL) aircraft.

During an event at its headquarters in Manassas, Virginia, the company revealed the two-seat model, which it says is the world's first blown-lift aircraft powered by distributed electric propulsion. The technology demonstrator, which the company has named the Gold Finch, is about the size of a Cessna 172 light aircraft and around 80 percent of the scale of the prototype. The prototype will be the same size as the production aircraft, albeit not fully conforming.

Based in Manassas, Virginia, Electra is developing an aircraft that can take off from a soccer-fieldsized area with a 150-ft. ground roll and carry nine passengers or 2,500 lb. of cargo up to 500 mi. The TD2 demonstrator will flight-test Electra's blown lift technology, which uses distributed electric propulsion.

The demonstrator has a modified Cessna 172 wing, with eight electric-powered propellers mounted under the leading edge so that their slipstream flows back over the wing and blows large, doubleslotted flaps and drooped ailerons to increase lift at low airspeed. The goal is to demonstrate a 150-ft. ground roll. For comparison, one of the aircraft with the shortest minimum take-off and landing distances on the market is the Pilatus PC-6 STOL single engine turboprop, which requires a minimum runway length of 640ft. A single aisle airliner such as the A320 requires a 6,000ft long runway.Electra has completed a series of ground tests with the wing attached to a Cessna 172 fuselage and mounted on a truck that was driven along the Manassas Regional Airport runway to simulate takeoff and landing.

Electra was founded by John Langford, former CEO of Aurora Flight Sciences—now a Boeing subsidiary. Aurora has considerable experience with electric aircraft, including flying the Pegasus Personal Air Vehicle, an electric vertical-takeoffand-landing (eVTOL) technology demonstrator, in 2019.

According to Electra, it holds letters of intent for over 1,200 aircraft, which could lead to firm orders worth more than \$4 billion—implying a unit price of around \$3.3 million. The company recently raised \$85 million in new funding, which includes a \$30 million award from the U.S. Air Force to develop potential military applications for eSTOL aircraft.

Electra is targeting the market for trips of 50-500 mi., where people now choose to drive, with an

eSTOL capability that enables the aircraft to get close to where people are and where they want to go. Electra's first commercial aircraft will be certified under FAA Part 23 and will use a 600kW hybrid-electric power train. The electric Short Take-Off and Landing (eSTOL) aircraft will be the first of its type and have a range of 500 miles (800km) plus 45 minutes reserve. It will be capable of carrying nine passengers plus a pilot and have a cruise speed of 200mph (320km/h) at 10,000ft.

According to Electra, its eSTOL aircraft offers key advantages over eVTOL aircraft during flight, such as increased range and comfort. In addition, the eSTOL aircraft's capability to take-off and land quietly from short runways will enable it to be used in and from urban areas in the same way as eVTOL air taxis or regional shuttles.



Ministry of Civil Aviation organizes Curtain Raiser event for Wings India 2024



Asia's largest commercial, general, and business aviation event to be held in January 2024

The Ministry of Civil Aviation in collaboration with Federation of Indian Chambers of Commerce & Industry (FICCI) organized a curtain raiser ahead of Wings India 2024 in New Delhi on 18th May, 2023.

Civil Aviation Minister Shri Jyotiraditya M. Scindia said that the Government is giving special focus on creating capacity for the country's fast-growing aviation market, by changing its role from a regulator to a facilitator.

Addressing the curtain raiser event for Wings India 2024 in New Delhi on Thursday, Union Civil Aviation and Steel Minister said that the government has adopted a 3-pronged strategy of creating capacities, removing bottlenecks and simplifying processes, that has helped the sector

A BI-MONTHLY NEWSLETTER



to leap from 74 airports to 148 airports in the past nine years. Setting a target for the industry he said that the number of airports, heliports, and waterdromes will go up to more than 200 in the next three to four years.

Sharing his thoughts on the growing potential of the industry to become the world's leading aviation market by 2047, the Minister added "As India sails on its journey from the Amrit Kaal to Shatabdi Kaal (2047), Indian aviation will also transform from being the third largest domestic market/eighteenth largest international market/ seventh largest domestic and international market, to become the largest aviation market globally". Reiterating the government's commitment to creating an international aviation hub in the country, he said a large number of air services and open skies agreements inked between India and other countries would facilitate this growth target.

Civil Aviation Secretary Shri Rajiv Bansal in his address said that major airports of the country are growing and many of them have already implemented the expansion plans. He said, currently India is connected to less than 100 destinations globally, but there is a huge potential to improve international connectivity. Shri Bansal also added that there has been growth in the small aircraft segment, he said, "Newer airports are getting inaugurated under the UDAN Regional Connectivity Scheme and it will enable more people from tier-2 and tier-3 cities to come to the domestic aviation map. He said that the large order by Indian aviation companies indicates that this dream of creating international hubs in India will soon be a reality."

Scheduled to take place from 18th to 21st January 2024 in Hyderabad, Wings India 2024, is expected to be Asia's largest event on Civil Aviation on Commercial, General and Business Aviation. Wings India 2024 will bring together various stakeholders and participants from all over the world from the aviation industry to promote collaboration, showcase innovations and explore business opportunities.