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Vol: 08 Issue: 9 JUNE - 2022

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Subscription/ Circulation Annual Subscription: 1800 INR – 12 Issues

E-mail: info@aviationupdatemagazine.com

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

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



Beware of false knowledge; it is more dangerous than ignorance

s we bring another vibrant issue of our magazine, we are hopeful we are satisfying the thirst for information of our aviation enthusiast subscribers. We have loaded this issue with latest updates of the global and domestic aviation sector.

You will find a quick snapshot of all the updates from around the globe that is shaping the aviation sector in quick update section. You can catch more update on the same in the cargo section. The engine section has interesting information on the latest updates in the aircraft engine world.

We have had a conversation with 'The Unstoppable Entrepreneur' Managing Director, Sanjay Ghodawat Group (SGG) says his vision is to cross INR 7500 Cr.in revenue by FY 2025. I personally got connected to his statement "Don't focus on short term gains but focus on long term wealth creation plan."

The Aviation courses offered by HAL Management Academy for young aspirants are opening new career paths for the students and helping them venture into the global aviation job market.

The regional aviation has a promising future in the country as it will help in the growth of new business hubs in the country. For the aspiring candidates eyeing a rewarding career in Indian aviation, aviation update has been publishing the recruitment of different Indian airlines which will allow the candidates to apply for various openings and receive information up-to-date please do Check with Lovelyhr.in.

In this tough time, your support becomes our driving force. The courage to keep our head up and the herculean effort of our Aviation Update team members, associates, advisors, and volunteers to make every edition a masterpiece has helped us make the magazine a successful endeavour! Keep showering your love so that we can come up with several engrossing issues of Aviation Update like this! Stay safe!

Thanks

Kertinget

B. Kartikeya Editor

#### **AVIATION UPDATE**

#### SPICEJET AND AXIS BANK LAUNCH CO-BRANDED CREDIT CARD



SpiceJet airline and Axis Bank, India's third largest private sector bank, have partnered to launch the most rewarding cobranded credit card, powered by Visa that will offer a host of privileges and benefits to customers. The card comes in two variants – SpiceJet Axis Bank Voyage and Voyage Black, and is aimed at facilitating a superlative travel experience for flyers through SpiceClub, the first frequent flyer program by a low cost carrier in India.

Through this collaboration, the two brands hope to capitalize on the resurgent demand for travel following two years of stagnation caused by the pandemic. Further, with the shared goal of expanding their reach to Tier 2 & 3 cities and other synergies, the brands are committed to serving a much larger populace.

SpiceJet Axis Bank Voyage & Voyage Black credit cards were officially launched at Indira Gandhi International airport in the presence of Ajay Singh, Chairman and MD, SpiceJet and Amitabh Chaudhry, MD & CEO, Axis Bank, where they unveiled a special SpiceJet-Axis Bank credit card livery on a SpiceJet Boeing 737 MAX aircraft.

The products are designed to enable customers use the rewards earned on their daily spends for booking flights and add-ons, thus encouraging both travel and digital payments embedded with benefits of SpiceJet's frequent flyer program, SpiceClub.

Customers can earn benefits up to 7% on the Voyage Black credit card which is a Top-tier offering in the travel credit card segment. In addition, the redemption of earned points does not have any limitations on blackout dates, festival demand, and are on first-come basis. Cardholders would get exclusive SpiceClub membership with direct entry in either Silver or Gold tiers, and special benefits like complimentary or discounted travel add-ons, priority check-in, SpiceMax upgrade, preferred seat selection, complimentary meal etc.

Ajay Singh, Chairman and Managing Director, SpiceJet, said, "I am delighted to announce the launch of the SpiceJet-Axis Bank co-branded Credit Card. This card will make every customer journey an even more rewarding one. We are the pioneers of the frequent flyer program for budget airlines in the country and this partnership with Axis Bank significantly strengthens the value offering of SpiceClub. Our association with Axis Bank – founded on the shared vision to offer unparalleled customer experience - is yet another innovative step towards creating a world class travel experience. I hope to see our customers enjoying the benefits of this rewarding collaboration as much as they love to fly with us."

Commenting on the occasion, Amitabh Chaudhry, Managing Director & CEO, Axis Bank said, "We are delighted to partner with SpiceJet, a brand that shares our vision of expansive reach and unmatched services. As we strive to give our customers a hassle-free payments experience across all touchpoints, this partnership becomes key, especially as we witness travel opening up again and becoming a leading category. The two teams will work together to bring in the synergies, with best of offers and services, thereby truly making a difference to the customers and their travel experience."

Sandeep Ghosh, Group Country Manager, India and South Asia, Visa said, "With air travel across the country coming back to pre-pandemic levels, consumers rely on credit cards for unique benefits and valueadds while on the move. Globally, credit cards that offer the best of on ground and inflight experiences remain a popular choice for air travellers. At Visa, we have helped power the SpiceJet Axis Bank Voyage credit card to cater exclusively to the needs and indulgences of the discerning Indian air traveller. We are confident of the card setting a new benchmark for air travellers in the country."

#### AIRBUS, TATA STRIVE COLLABORATE WITH AASSC TO SKILL INDIA'S YOUTH FOR AVIATION JOBS



A irbus signed a Memorandum of Understanding (MoU) with Tata STRIVE, a skill development initiative of Tata Trusts, and the Aerospace and Aviation Sector Skill Council (AASSC) to train young Indians for aviation and aerospace jobs.

AASSC is the apex body in skill development in aerospace and aviation sector under the aegis of National Skill Development Corporation (NSDC).

The MoU was signed by Rémi Maillard, President and Managing Director, Airbus India & South Asia, Anita Rajan, CEO – Tata STRIVE and Wg Cdr Rachit Bhatnagar CEO, AASSC in the presence of Christian Scherer, Chief Commercial Officer and Head of Airbus International, Sandeep Patnaik, Director, AASSC and Chetan S, Head Operations, AASSC. Under the partnership, Airbus, Tata STRIVE and AASSC with support of NSDC & Ministry of Skill Development & Entrepreneurship (MSDE) will work together to build a pipeline of talent in the aerospace sector, focusing on providing opportunities to the youth.

"India is looking at exponential growth in every facet of the aerospace and aviation ecosystem. This is fueling the demand for aerospace jobs and with it the growing need for relevant skills. We believe that India's strength lies in its talent and we are deeply invested in nurturing the youth and equipping them with the right skills that will meet this growing demand and also prepare them for the jobs that will shape the future of aerospace in the country. This collaboration is a step forward in achieving this ambition," said Rémi Maillard, President and MD of Airbus India & South Asia.

#### QUICK UPDATE

"The high growth Indian aviation sector will witness demand for skilled personnel and Tata STRIVE is keen to be well positioned to leverage the opportunity to enable these jobs for the youth we work with. The partnership with Airbus and Aerospace and Aviation Sector Skill Council brings together complementary strengths of the organisations in a model that builds a talent pool for the sector while helping youth fulfil their aspirations and build careers in aviation." said Anita Rajan, CEO – Tata STRIVE

"India is already the third biggest domestic aviation market in the world and is progressing on the path to take a spot of third biggest aviation market overall. Make in India and Skill India can be considered as two sides of the same coin. Aerospace and Aviation Sector Skill Council (AASSC) promoted by HAL, SIATI & BCIC, an apex body in the aerospace and aviation skill ecosystem formed under NSDC and MSDE will enable the youth to get re-skilled and up-skilled in the aspiring areas of airport operations, airlines, ground handling, aerospace manufacturing and drone technology as well. Our endeavour will be to make India a Global Skill Hub in this domain in the coming years ." said Wg Cdr Rachit Bhatnagar, CEO of AASSC.

#### VISTARA INAUGURATES SERVICES TO COIMBATORE



Vistara inaugurated direct daily flights between Delhi and Coimbatore. The airline will also start daily direct service on the Mumbai-Coimbatore route starting 27 May 2022, and double daily flights on the Bengaluru-Coimbatore route starting 03 June 2022.

Vinod Kannan, Chief Executive Officer, Vistara, said, "The launch of daily direct flights to Coimbatore from three metro cities, at very convenient departure and arrival timings, is an important step towards offering more connections to our customers and densifying our domestic network. With Coimbatore emerging as a key hub for trade and commerce besides being a preferred tourist destination, it's a city that the discerning travellers are increasingly flying to, giving us the opportunity to offer them our award-winning services on these routes too."

#### BOEING'S STARLINER SPACECRAFT COMPLETES SUCCESSFUL DOCKING TO SPACE STATION



Boeing's [CST-100 Starliner spacecraft made its first connection to the International Space Station at 7:28 p.m. Central Time (0028 UTC) to complete a primary goal of the program's Orbital Flight Test-2 (OFT-2). With no astronauts on board, Starliner's autonomous systems and ground controllers in Houston guided the vehicle through a carefully choreographed series of maneuvers to steadily bring the Starliner closer to the orbiting laboratory before docking. Astronauts aboard the space station monitored Starliner throughout the flight and at times commanded the spacecraft to verify control capabilities.

"Today's successful docking of the Starliner is another important step in this rehearsal for sending astronauts into orbit safely and reliably," said Boeing Defense, Space & Security President and CEO Ted Colbert.

Launching atop a human-rated United Launch Alliance Atlas V rocket on May 19, 2022, from Cape Canaveral Space Force Station in Florida, Starliner spent its first hours in space performing a series of system demonstrations allowing mission managers to verify the spacecraft was healthy and able to maneuver safely. After docking, the Starliner recharged its batteries using solar arrays located on the service module.

After astronauts aboard the station declared "Tally-ho, Starliner," the vehicle connected to a Boeing-built docking port on the International Space Station.

"Starliner has proven safe, autonomous rendezvous and docking capability," said Jim Chilton, senior vice president, Boeing Space and Launch. "We're honored to join the fleet of commercial spacecraft capable of conducting transportation services to the space station for NASA."

Equipped with a fully functional life support system, as well as all of the other critical systems to support humans, the spacecraft and mission are designed to give Boeing and NASA enough data to certify the spacecraft for long-duration crewed missions to the International Space Station.

#### SPICEJET APPOINTS ANIL SINGLA AS VICE PRESIDENT AND HEAD OF ENGINEERING

SpiceJet announced the appointment of Anil Singla as Vice President and Head of Engineering. Singla is an aviation veteran having more than three decades of experience. He has previously worked with Air Works as Associate Vice President and Sahara Airlines as Director, Engineering.

Ajay Singh, Chairman and Managing Director, SpiceJet, said, "I am delighted to welcome Anil Singla to the SpiceJet family. He brings with him an unparalleled understanding of the sector and invaluable experience gained over 35 years of work. I wish him all the best for his new role and look forward to his expertise to achieve the Company's long term growth plans."

Anil Singla, Vice President and Head of Engineering, SpiceJet, said "I am delighted and honoured to join SpiceJet and look forward to closely working with the team. I hope to contribute to the growth story of the company and take the airline to greater heights under the able leadership of Mr. Singh."

#### BOEING, NAMMO CONDUCT SUCCESSFUL RAMJET 155 ARTILLERY TESTS



team from Boeing and the Norwegian company Nammo has conducted successful ground-fire tests of its Ramjet 155 Extended Range Artillery Projectile – a technology to enable long-range precision fires, one of the U.S. Army's key modernization priorities.

The tests, led by Nammo and conducted during the months of January and March in Norway, validated gun-launched survivability and performance predictions, and expanded Ramjet 155's employment envelope.

"Long-range precision-fires is a top modernization priority for the U.S. Army," said Steve Nordlund, Boeing Phantom Works vice president and general manager. "Therefore, it also is a top priority for Boeing. We are very encouraged by the development progress, maturation and ongoing testing of our Ramjet 155 projectile, which we believe will offer a superior, affordable capability against emerging threats."

"We are seeing excellent progress in the development of the ramjet, with no major stumbling blocks," said Nammo CEO Morten Brandtzæg. "The latest tests have been extremely promising."

Since 2019, Boeing Phantom Works and Nammo have been working together under a strategic partnership to jointly develop and produce the next generation of boosted artillery projectiles to meet the Army's long-range, precision-fire priorities. Ramjet 155 uses an engine in which the air drawn in for combustion is compressed solely by the forward motion of the projectile at supersonic speeds. The program builds on the success of Boeing's Joint Direct Attack Munition (JDAM) and Small Diameter Bomb (SDB) programs and addresses range, accuracy and volume of fire gaps between current artillery systems and those operated by potential adversaries.

#### INTERNATIONAL AIRLINES GROUP FINALIZES Agreement for up to 150 737 Jets



Boeing and International Airlines Group (IAG) announced an order for a combined total of 50 737-8-200s and 737-10s, plus 100 options.

"The addition of new Boeing 737s is an important part of IAG's short-haul fleet renewal. These latest generation aircraft are more fuel efficient than those they will replace and in line with our commitment to achieving net zero carbon emissions by 2050," said Luis Gallego, IAG's chief executive.

The 737-8-200 will enable IAG to configure the airplane with up to 200 seats, increasing revenue potential and reducing fuel consumption.

The largest model in the family, the 737-10 seats up to 230 passengers in a singleclass configuration and can fly up to 3,300 miles. The fuel-efficient jet can cover 99% of single-aisle routes, including routes served by 757s.

"With the selection of the 737-8-200 and larger 737-10, IAG has invested in a sustainable and profitable future, as both variants will significantly lower operating costs and CO2 emissions,» said Stan Deal, president and CEO of Boeing Commercial Airplanes. "Today's agreement for up to 150 airplanes, including 100 options, is a welcome addition of the 737 to IAG's shorthaul fleets and reflects our commitment to support the Group's continued network recovery and future growth with Boeing's unrivalled family of airplanes."

#### AIRBUS INCREASES ITS UK INNOVATION FOOTPRINT TO DEVELOP NEW HYDROGEN TECHNOLOGIES



A irbus is strengthening its presence in the UK with the launch of a Zero Emission Development Centre (ZEDC) for hydrogen technologies. A priority for the UK ZEDC will be the development of a costcompetitive cryogenic fuel system required for the successful entry-into-service of Airbus' ZEROe passenger aircraft by 2035 and to accelerate UK skills and know-how on hydrogen-propulsion technologies.

The UK ZEDC will benefit from the recent commitment by the UK Government to guarantee £685 million of funding to the Aerospace Technology Institute (ATI) over the next three years to support the development of zero-carbon and ultra-lowemission aircraft technologies.

"Establishing the ZEDC in the UK expands Airbus' in-house industrial capabilities to design, develop, test and manufacture cryogenic hydrogen storage tanks and related systems for the ZEROe project across Airbus' four home countries. This, coupled with our partnership with ATI, will allow us to leverage our respective expertise to realise the potential of hydrogen technology to support the decarbonisation of the aviation industry," said Sabine Klauke, Airbus Chief Technical Officer.

Technology development at the new UK ZEDC, to be based in Filton, Bristol, has already started and will cover the full product capabilities from components up to whole system and cryogenic testing. End-to-end fuel systems development, a speciality of Airbus in the UK, is one of the most complex technologies crucial to the performance of a future hydrogen aircraft.

### Boeing and Ethiopian Airlines Announce Order for Five 777 Freighters

Boeing and Ethiopian Airlines announced the carrier is further expanding its all-Boeing freighter fleet with an order for five 777 Freighters. The order is currently unidentified on Boeing's orders and deliveries website.

"The addition of these five 777 Freighters into our cargo fleet will enable us to meet the growing demand in our cargo operation. While cementing our partnership with Boeing with new orders, the growth of our freighter fleet takes the capacity and efficiency of our shipment service to the next level," said Ethiopian Airlines Group CEO Mr. Mesfin Tasew. "We always strive to serve our customers with the latest technology aircraft the aviation industry could offer. Our cargo terminal is Africa's largest, coupled with fuel-

### Lufthansa Cargo orders ten 777 freighters

Lufthansa Group has ordered new ten freighter aircrafts, the biggest-ever cargo investment in its history. The order comprises three current-technology Boeing 777F freighters and seven of Boeing's nextgeneration all-cargo aircraft, the 777-8F freighter.

The first 777F aircraft could be acquired on the used market and is expected to be added to the fleet as early as July 2022. The new B777Fs will follow later, boosting capacity in the short to medium term. Leases for two existing Boeing 777F freighters will also be extended until 2031.

Lufthansa said that the new generation Boeing 777-8Fs would offer a 4,410 nautical miles (8,167km) range and payload of 118 tonnes – 17 % more than the 777F, while fuel consumption and emissions would also be lower. Delivery of the aircraft is expected between 2027 and 2030. The new planes will be a major boost for Lufthansa Cargo's current freighter capacity. Its fleet currently consists of 15 Boeing 777Fs, four of them operated by Aerologic, and two A321 freighters.

efficient freighters and well-trained cargo

customers get the best quality shipment

service. Customers can rely on Ethiopian

Boeing's market-leading 777 Freighter

is the world's largest, longest-range and

most capable twin-engine freighter flying

with 17% lower fuel use and emissions to prior airplanes. Ethiopian Airlines operates

the model's range of 4,970 nautical miles

a fleet of nine 777 Freighters, utilizing

(9,200 km) and maximum structural

payload of 107 tonnes (235,900 lb) to

continents.»

for wide-ranging cargo services across five

handling professionals will enable our

thiopian

Lufthansa Cargo chief executive and board chairperson, Dorothea von Boxberg, commented: "We can offer our customers significantly more capacity in the short and connect Africa with 66 dedicated cargo centers throughout Asia, Europe, the Middle East and the Americas.

"Ethiopian Airlines' all-Boeing freighter fleet provides them with unrivalled capability and flexibility as Africa's largest cargo operator,» said Ihssane Mounir, Boeing's senior vice president of Commercial Sales and Marketing. "These additional 777 Freighters will enable Ethiopian to capitalize on nearterm cargo demand, while positioning the airline for further expansion in the future."

long term, and also ensure that we operate the most modern and efficient freighters in their class.

"These major investments in Lufthansa Cargo are a sign of confidence in the future development of the airfreight market and in the role that Lufthansa Cargo will continue to play in it."



#### **AVIATION UPDATE**

8 JUNE | 2022



### Textron Aviation Celebrates First Delivery of the New Cessna SkyCourier to Launch Customer FedEx Express

Textron Aviation announced the first delivery of the Cessna SkyCourier twin utility turboprop to FedEx Express. This is the first of 50 freighter aircraft that global logistics firm FedEx Express ordered as the Cessna SkyCourier's launch customer. The clean-sheet aircraft achieved Federal Aviation Administration (FAA) type certification in March 2022.

"FedEx took delivery of its first Cessna in the mid-1980s and the two companies have had a collaborative relationship over the four decades since," said Ron Draper, president and CEO, Textron Aviation. "We're thrilled to deliver this aircraft that will help FedEx serve its customers more efficiently as it is designed with the option to carry industrystandard prepacked cargo containers. We believe many other air freight, passenger and special mission operators also will benefit from the winning combination of low operating costs and unparalleled lift capacity that the new Cessna SkyCourier brings to the market."

"For nearly 50 years, FedEx has been known for being flexible and innovative in finding solutions for our customers, and this aircraft will help us better serve small and medium markets where we aren't able to operate our larger aircraft," said Scot Struminger, CEO and Executive Vice President of Aviation, FedEx Express. "The SkyCourier will make us more efficient, now being able to move containerized and palletized freight for our customers."

"The result of four-and-a-half years of collaboration with Textron Aviation on this aircraft, FedEx Express is excited to add the Cessna 408 SkyCourier as part of our fleet modernization program," Struminger added.

### Production Underway for new Dassault Falcon 10X

Parts production for Dassault Aviation's new ultra-long range Falcon 10X is now underway, with final assembly of the first aircraft set to begin next year. With detailed design nearly complete, production and assembly of the ultra-widebody twin is gearing up at sites around Europe and North America, including a brand-new Factory 4.0 smart manufacturing facility in Seclin in northern France. A new production hall in Biarritz in southwestern France is dedicated to the aircraft's all-composite wing. A first wing is in final assembly and will be placed in a static test rig this summer.

"We are making excellent progress in getting this new aircraft into production, and the coming months will see an increasing flow of parts, subsystems and large structures into our facilities in the south of France," said Dassault Aviation Chairman and CEO, Eric Trappier. "With help from the world's leading suppliers, the Falcon 10X will be the most advanced and capable aircraft in business aviation."

The 10X will have the largest cabin of any purpose-built business jet, along with the most flexible and homelike interior. With a cabin height of six-feet, eight inches and volume of 2,780 cubic feet, the ultraspacious cabin has been likened to a "flying penthouse." Range will be 7,500 nautical miles (13,900 km) at Mach 0.85 and top speed will be Mach 0.925.

The first of the ultra-efficient Pearl 10X engines that will power the 10X recently ran on a test stand at Rolls-Royce's Dahlewitz, Germany facility, surpassing its target thrust level on the first run. Already, Rolls-Royce has accomplished 1,000 hours of testing on the 18,000 pounds-plus thrust engine, including runs on 100 percent sustainable aviation fuel. The Pearl 10X will be certified for 100 percent SAF.

Other test highlights include installation of a multi-system integration bench, complete with subsystem computers, at Dassault's Istres flight test facility near Marseille. This multi-system bench, along with individual benches for fuel systems, electrical systems, hydraulics, and flight controls, will serve to ensure that all systems are fully tested and mature when the 10X takes to the sky. Certification and entry into service is anticipated in late 2025.



### Textron Aviation Announces XLS Gen2 EASA Certification

Textron Aviation announced at the European Business Aviation Convention & Exhibition (EBACE) in Geneva, Switzerland, that it has earned European Aviation Safety Agency (EASA) type certification for the Cessna Citation XLS Gen2 business jet. The company is set to make its first European delivery of the XLS Gen2 to Porsche Air Service GmbH of Salzburg, Austria, in the coming weeks.

"Achieving this milestone delivery with Porsche Air Service – a company that embodies innovative engineering and design, high-end craftsmanship, a legendary heritage and a reputation for high-performance product investments – demonstrates how perfectly aligned the features, quality and performance of the XLS Gen2 are with the priorities of our customers," said Lannie O'Bannion, senior vice president, Global Sales and Flight Operations for Textron Aviation. "This will pave the way for deliveries of the XLS Gen2 throughout Europe.

The Cessna Citation XLS Gen2 will support Porsche Air Service for its charter services mission throughout Europe as the company continues its five-decade history with Citations. Its fleet includes a Cessna Citation XLS+ and now the new Citation XLS Gen2. This is the 22nd Citation aircraft flown



by Porsche Air Service.

"The XLS Gen2 will provide our passengers with total comfort and a top-notch flight experience," said Hubert Lindenthaler, CEO of Porsche Air Service GmbH. "With the addition of the XLS Gen2 to our fleet, we will continue to deliver exceptional aircraft charter services throughout Europe."

### Italian MoD formalises order with Piaggio Aerospace for the purchase of six new Avanti EVOs



Lorenzo Guerini, the Italian Minister of Defence, had announced it last October, just after having signed the relevant Decree. The much-awaited order has been eventually formalized: Piaggio Aerospace, the Italian aircraft manufacturer currently attending EBACE in Geneva (Switzerland), will provide the Italian Armed Forces with six new P.180 Avanti EVOs, which will add to the nine sold in December 2019 and currently under production.

"Today's contract further improves the Company's portfolio,

just when the deadline for potential investors to submit the binding offers to purchase Piaggio Aerospace's business assets is approaching", said Piaggio Aerospace's Extraordinary Commissioner Vincenzo Nicastro. "Meanwhile we are working actively on the private customers' market, too, in order to consolidate their interest in our aircraft".

The agreement - signed by the Directorate of Aeronautical Armaments and Airworthiness and Mr Nicastro - is worth approximately 55 million euro and requires the Company to produce and deliver the six aircraft within the next two years. The new Avanti Evo's will be provided with those technical upgrades that had already been outlined in the previous contract and that are now in their very last stage of development or have already been fine-tuned by the Italian company's engineers.

### Gulfstream G700 Sets City-Pair Record on SAF for Geneva Debut



The new industry flagship Gulfstream G700 set its seventh international city-pair speed record on May 20, 2022, en route to the European Business Aviation Convention & Exhibition in Geneva. In a demonstration of Gulfstream's industry-leading sustainability commitment, the G700 flew the record flight on sustainable aviation fuel (SAF). The G700 linked Savannah, Georgia, to Geneva in 7 hours and 37 minutes at an average speed of Mach 0.90.

### Cessna Citation XLS Gen2 achieves FAA Certification, begins deliveries

The latest update to the best-selling midsize business jet family of the 21st century has entered into service. Textron Aviation has achieved Federal Aviation Administration (FAA) type certification for the Cessna Citation XLS Gen2 business jet and this week delivered the first customer aircraft to a longtime Citation operator in the Midwest.

"Loyal Citation customers inspire us to continually invest in bringing the latest design and technology to our product line," said Lannie O'Bannion, senior vice president, Sales and Flight Ops. "This fresh approach to our popular 560XL series includes comfort and productivity upgrades requested by our customers, yet retains the model's combination of performance and efficiencies that offers midsize jet features at a smaller jet operating cost."

The Cessna Citation XLS Gen2 is the latest model of the Citation 560XL midsize business jet series, which began with the introduction of the Citation Excel in 1998. More than 1,000 560XLs have been delivered throughout the past 25 years. Business owners, fractional owners and charter operators have consistently chosen the Citation 560XL series more than any other aircraft in the light midsize category.



### Bombardier Introduces Global 8000 Aircraft, the Flagship for a New Era in Business Aviation

Bombardier unveiled the newest member of its industry-leading business jet portfolio with the introduction of the Global 8000 aircraft, the world's fastest and longest-range purpose-built business jet, innovatively crafted with the industry's healthiest cabin for safety, comfort and performance beyond compromise.

With an industry-leading range of 8,000 nautical miles and an unbeatable top speed of Mach 0.94, the Global 8000 aircraft is the ultimate all-in-one business aircraft, offering customers a unique blend of outstanding performance married with the smoothest ride and an uncompromising passenger experience – the absolute leader in the long-range class.

"Today, Bombardier solidifies once more its position as the leader in business aviation with the newest member of the industryleading Global family," said Éric Martel, Bombardier's President and Chief Executive Officer. "The Global 8000 aircraft leverages the outstanding attributes of the Global 7500 aircraft, providing our customers with a flagship aircraft of a new era. We remain unmatched, which for an innovationfocused team like us, is great."

Some of the impressive performance capabilities of the new Global 8000 aircraft were witnessed as early as May 2021, following a demonstration flight with a Global 7500 flight test vehicle. The aircraft, accompanied by a NASA F/A-18 chase plane, repeatably achieved speeds in excess of Mach 1.015, a key step in enabling a maximum Mach operating speed (MMO) of M0.94 and becoming the fastest business jet in the world and the fastest in civil aviation since the Concorde. During the demonstration flight, the aircraft also became the first Transport Category airplane to fly supersonic with sustainable



aviation fuel (SAF).

The discerning Global 8000 business jet also features the healthiest cabin in the industry, with the lowest cabin altitude in its class of 2,900 feet when flying at 41,000 ft. It is also equipped with Bombardier's PDr Air and advanced HEPA filter technology for the cleanest cabin air and the fastest fresh air replacement.

The Global 8000 aircraft is the only true four-zone cabin business jet to have a range of 8,000 nautical miles - and it more than delivers even when it comes to comfort. With its spacious four personalized suites ergonomically designed to maximize space and freedom of movement, the Global 8000 aircraft also incorporates the revolutionary features introduced on the Global 7500 aircraft that dramatically improve passenger comfort, including the Soleil circadian lighting system to help combat jet lag. Coupled with the innovative Nuage seat with the first-ever zero gravity position, passengers will arrive at their destinations revitalized and refreshed.

An exemplary commitment to detail is assured on the new Global 8000 aircraft, including an available Principal Suite with a full-size bed and a stand-up shower in the En-suite. Revolutionary cabin entertainment control and connectivity, the intuitive nice Touch CMS and OLED touch dial, Bombardier's l'Opéra directional audio sound system and available 4K monitor, also ensures passengers will receive an unrivalled cabin experience.

In the cockpit, the Global 8000 aircraft features the renowned Bombardier Vision flight deck with its next generation fly-by-wire technology and blend of cutting-edge avionics with exceptional ergonomics and aesthetics for remarkable comfort and control.

Performance-wise, the new Global 8000 aircraft can efficiently transport customers to a wide variety of destinations both faster and farther than ever before. And with its exceptional class-leading range and short-field performance, even more exclusive city pairs are now achievable, including Dubai-Houston, Singapore-Los Angeles, London-Perth and many others.

Expected to enter service in 2025, the Global 8000 aircraft development is ongoing, and the program is progressing to plan. And for current Global 7500 operators, the incredible performance enhancements on the Global 8000 will be retrofittable when the aircraft enters into service in 2025.

The introduction of the new Global 8000 aircraft has been a carefully planned investment that further strengthens Bombardier's impressive portfolio of industry-defining business jets. Development to date has been included in previously disclosed investment figures. All further development costs will be included in Bombardier's capex, which remains in line with its 2025 objectives.



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### Campbell Wilson appointed as the CEO & MD of Air India



Tata Sons announced Mr Campbell Wilson's appointment as the Chief Executive Officer (CEO) & Managing Director (MD) of Air India. The Air India board approved the appointment of Mr Wilson subject to requisite regulatory approvals.

Mr Wilson, 50, has 26 years of aviation industry expertise across both full service and low-cost airlines. He is the CEO of Scoot, the wholly-owned low-cost subsidiary of Singapore Airlines (SIA).

Commenting on the appointment, Mr N Chandrasekaran, Chairman, Air India said, "I am delighted to welcome Campbell to Air India. He is an industry veteran having worked in key global markets cutting across multiple functions. Further, Air India would benefit from his added experience of having built an airline brand in Asia. I look forward to working with him in building a worldclass airline."

Speaking on the occasion, Mr Campbell Wilson, said, "It is an honour to be selected to lead the iconic Air India and be a part of the highly respected Tata group. Air India is at the cusp of an exciting journey to become one of the best airlines in the world, offering world-class products and services with a distinct customer experience that reflects Indian warmth and hospitality. I am excited to join Air India and Tata colleagues in the mission of realising that ambition."

### IndiGo appoints Pieter Elbers Chief Executive Officer, Rono Dutta retires



The Board of Directors of InterGlobe Aviation Limited (IndiGo) appoints Pieter Elbers as Chief Executive Officer, subject to regulatory approvals. He will join IndiGo on or before 01 October 2022. He succeeds Mr Ronojoy Dutta (71) who has decided to retire on 30 September 2022, after guiding IndiGo through the turbulent Covid period. Commending his service, Mr Rahul Bhatia, Managing Director of IndiGo said, "The Board of Directors and I would like to thank Rono for effectively leading our business for almost four years with a steady hand through what has been the most turbulent period in the airline's history and aviation globally"

Welcoming Mr. Elbers, Mr. Rahul Bhatia said, "We are thrilled to announce the appointment of Mr. Pieter Elbers as the Chief Executive Officer of the Company. India promises to be the last bastion of ginormous growth globally and given Mr. Elbers' deep understanding of the business, his legendary leadership qualities coupled with his energy and passion, we are ever so confident that under his stewardship, IndiGo will play a pivotal role in this growth opportunity.".

Responding to his appointment, Mr. Elbers said, "What IndiGo's employees and leadership have jointly built, since its start 16 years ago, is, by any standard, truly impressive. I am very honoured and do look forward to build upon this, working together with the entire IndiGo team. I am delighted to become a part of the next stage of IndiGo's incredible journey, further fulfilling the vision of what the airline can do and will be for its customers and for India."

Announcing his retirement, Mr. Dutta said, "I leave knowing that IndiGo is in the good custody of Mr. Elbers and that the future for IndiGo employees is secure and bright. I would like to thank all the employees at IndiGo for the kindness and affection they have shown me over the past four years. As I move forward to the next chapter of my life, I will look back with nostalgia, fondness, and a tinge of separation regret"

### Etihad Cargo Appoints Vice President – Commercial



Etihad Cargo, the cargo and logistics arm of Etihad Aviation Group, has appointed Tim Isik as Vice President – Commercial. Based in Etihad Cargo's headquarters in Abu Dhabi, Isik will oversee the carrier's global commercial operations.

Isik joins Etihad Cargo from American Airlines where he has had over a decade of experience working within the aviation and air cargo sectors. In his new role with Etihad Cargo, Isik will oversee the development and deployment of the carrier's sales strategy and be responsible for further growing Etihad Cargo's strategic relationships, executing sales and marketing plans and driving team performance. Isik will lead Etihad Cargo's commercial operations globally, supported by Latha Narayan, Etihad Cargo's Director - Commercial Asia Pacific, Australasia and Indian Subcontinent, and Mark Faulkner, Director - Cargo Commercial West. Isik will report to Martin Drew, Senior Vice President - Sales & Cargo.

"Etihad Cargo is delighted to have Tim on the team. I am confident his knowledge and expertise will contribute to Etihad Cargo's continued growth, enabling the carrier to further strengthen its position as the air cargo partner of choice," said Drew.

Isik said, "It's an exciting time to be joining Etihad Cargo, following the carrier achieving a milestone year in 2021. I look forward to working closely with Martin and the rest of the team as Etihad Cargo continues its journey of growth through innovation and successfully adapting to the needs of customers and the dynamic challenges of the air cargo market."

### Lars Wagner to become MTU Aero Engines CEO



Reiner Winkler (60), CEO of MTU Aero Engines AG, will terminate his mandate for personal reasons at year-end 2022, in agreement with the Supervisory Board. This has been jointly determined in today's Supervisory Board meeting. "After more than twenty years in the management board of MTU, I now see the time has come to pass on my responsibilities. The company's expected new growth phase and the excellent succession plan at the top of both the Supervisory and the Management Board appear to be a very suitable point in time. I am extremely thankful that I was allowed to help shape the successful development of MTU over such a long period of time."

The Chairman of the Supervisory Board, Klaus Eberhardt, said: "For more than two decades, Reiner Winkler has contributed decisively to develop MTU into an excellently positioned company with outstanding perspectives for its future. The role of MTU in the worldwide aircraft engine business was essentially strengthened and extended under his leadership. For this, the Supervisory Board expresses its utmost respect and thanks to him." Winkler's CEO appointment would have ended on September 30, 2024.

The Supervisory Board has unanimously appointed Lars Wagner (46), Chief Operating Officer of MTU, as future CEO of MTU as of January 1, 2023. "Lars Wagner is an excellent successor at the top of MTU and has been a potential internal candidate for some time. With his comprehensive experience in both MTU and the industry, and his convincing personality, he will lead the company into the future, which will be characterized by far-reaching technological innovations," Eberhardt said.

## Northrop Grumman Names Kenny Robinson as Chief Diversity Officer

Northrop Grumman Corporation has named Kenny Robinson as vice president and chief diversity officer, effective May 31. Robinson will report to Kathy Warden, chair, chief executive officer and president, and will work closely with the company's executive leadership team. He is succeeding Sandra Evers-Manly, who is retiring in June, after a 40-year career with Northrop Grumman. Robinson's appointment continues the company's strong commitment to a diverse workforce, an inclusive culture and a workplace that creates opportunity for everyone.

Robinson will continue to advance Northrop Grumman's diversity, equity and inclusion (DEI) strategy and programs, and the company's corporate citizenship, DEI and ethics programs, as well as serve as president of the Northrop Grumman Foundation.

Robinson is currently vice president, Engineering and Sciences for a division in the Mission Systems sector. Previously, he led organizations within the company's Space business. Robinson joined Northrop Grumman in 2007 following a distinguished career in the US Air Force, culminating as the commander, Global Positioning System Control Segment Group. He holds a bachelor's degree in biological sciences from the US Air Force Academy and a master's degree in applied management from Lesley University.

## Satcom Direct expands Asia Pacific presence

Satcom Direct (SD), the business aviation solutions provider, is strengthening its Asia Pacific network with the opening of a Singapore office. The new location represents the base for Brian Roos, the recently appointed Asia Pacific, Regional Director, and newly named Regional Sales Manager, Kaviraj (Kavi) Nadarajah.

Reporting directly to Senior Vice President, SD International, Michael Skou Christensen, Roos is responsible for establishing the SD presence in Singapore and executing SD's ongoing strategic developments across the Asia Pacific region. This includes identifying new markets, adding to the customer portfolio, consolidating existing and new MRO relationships, building new partnerships, and introducing established and new SD products and services to the connectivity-hungry market as well as ensuring continued delivery of SD award winning customer support.

"Stretching from China to New Zealand, the Asia Pacific region has always been an important market for SD, and still holds great potential for us. It is a buoyant area where the business aviation fleet continues to evolve, the number of highnet worth individuals is increasing, and the appetite for technology solutions to



improve the user and owner experience is unparalleled globally. The appointment of Kavi enhances our support for regional operators and owners which are optimizing customized connectivity solutions to manage their data to meet their diverse mission needs. I am thrilled to have the opportunity to bolster SD's footprint here," says Roos.

Kavi Nadarajah will work closely with Roos, overseeing the north and Southeast Asian customer base. His previous experience includes roles for Hawker Pacific and Jet Aviation after beginning his 18-year aviation career as a dispatcher for commercial airlines. He is eager to bring his passion for customer service to the SD community. "I am extremely excited to be a part of the new Singapore office team. The sky is not the limit for our services and I look forward to engaging with our customers to help them make the most out of the SD product and service portfolio," says Nadarajah.

#### **AVIATION** UPDATE

UPDATE

# **The Unstoppable Entrepreneur**

Mr Shrenik Ghodawat MD - Ghodawat Consumer Ltd In Conversation With Kartikeya Editor of Aviation Update Magazine.

### Can you brief our readers about the Sanjay Ghodawat Group?

Sanjay Ghodawat Group (SGG) is a prominent Indian business conglomerate that has a presence in various high-value business verticals. Aviation, Consumer Products, Education, Energy, Mining, Realty, Retail, and Textiles are some of its key business domains. SGG was founded in 1993 and since then it has witnessed impressive growth under the splendid stewardship of its Founder and Chairman-Mr. Sanjay Ghodawat. It has a strong base of millions of customers globally, an employee strength of over 10,000, and a student base of over 16,000.

## What changes have you implemented since your appointment?

As the Managing Director, I spearhead overall operations and strategic functions of GCL. In the last financial year, we have achieved a milestone of 1400cr and are on track to achieve 2000cr in FY22-23. My main goal is to ensure consumer utilizes at least one product from GCL in the entire day. That is why, I have ensured we invest in state-of-the-art infrastructure, high-quality packaging & raw materials, A skilled team to deliver the best possible. As consumers are becoming more health-conscious, we have introduced a wide range of healthier and higher-quality items and have priced our products cost-effectively. Our goal is to be a 5000cr company by 2025 and we shall achieve this milestone by introducing new, innovative, easily accessible and competitively priced consumer products for our customers.

#### What are the main challenges you are facing and how do you propose to overcome them?

2021 was a challenging year for everyone as we dealt with multiple lockdowns at the national and state levels. We faced a lot of disruption in demand and supply chain. But we also overcame all these obstacles and were able to achieve 40% CAGR because of our able team, planning and focus. As we aim to enhance lives, we also joined the e-commerce industry by making sure our products are easily accessible to every consumer. We also made our products available through our Star Localmart stores. We identified close to 2000 plus distributors and our products are available at half a million retail outlets today.

#### It has been a challenge in the past to achieve global standards in the region. What more can be done?

With manufacturing consumer products, also comes the global standards for its process and packaging. This ensures the quality and safety of consumer products and helps create a robust system of regulations to follow. Every regional and global level manufacturer should voluntarily adhere to global standards irrespective of challenges as it propels sustainable growth for the long term. India is a key player in delivering quality consumer products in the international market. But, when it comes to regional manufacturers in India, most of them face challenges like unavailability of skilled workers, poor infrastructure, logistics and outdated machinery. Since all these sum up to the quality of the end result, regional manufacturers tend to miss out on

following the global standards. That is why at GCL, we have invested in state-of-the-art infrastructure, high-quality packaging & raw materials, and a skilled team to deliver the best possible to ensure that it meets the global quality and safety standards for manufacturing consumer goods.

#### Is your expansion program performing as expected? Yes

### Could you please explain Star Air expansion strategy?

Star air will keep developing new routes from new airports and keep Connecting Real India. Currently, we offer scheduled flight services to 18 Indian destinations that include Ahmedabad, Ajmer (Kishangarh), Bengaluru, Belagavi, Delhi (Hindon), Hubballi, Indore, Jodhpur, Kalaburagi, Mumbai, Nashik, Surat, Tirupati, Jamnagar, Hyderabad, Nagpur, Bhuj and Bidar.

NEELER

For more information, please visit: www.starair.in

#### What is your opinion on the current aviation infrastructure development in India?

Infrastructure is coming up fast, the government has announced the ambitious 100 new airport initiative by 2024, several airport projects are currently underway at several allocated sites throughout India. To accommodate the rapid rise in passenger traffic, the Indian government is investing significantly in the modernization of aviation infrastructure in the country, and it has initiated several greenfield and brownfield projects scheduled to commence or be completed during the forecast period.



#### What is your advice to youngsters who wish to choose entrepreneurship as their career?

While obstacles may continue, being adaptive and agile to change to the changing environment has been my constant mantra to success. Don't focus on short term gains but focus on long term wealth creation plan.

#### What is more important to you – improving revenue or lowering costs?

For us, more important are the Margins. So, we need both higher revenues and a lower cost structure working together to improve our margins.

### What are your expansion plans for your overall businesses?

At SGG, our vision is to cross INR 7500 Cr. in revenue by FY 2025. All our businesses have been performing exceptionally well and have won reputed accolades in their respective sectors. GCL is expanding to various cities in India and looking forward to contributing a lion's share to our overall growth strategy by becoming a 5000cr company by 2025. Star Localmart in the next three years will have at least 3000 stores spread across various states in India and will provide employment to over 25,000 people. RENOM is now the largest ISP in India which presently has over 1.5 GW of renewable assets under management, which will grow to 5 GW by the FY25.

Star Air is an aviation-focused company with a mission to Connecting Real India. We will be expanding our MRO capabilities, Cargo and Training Facilities. We have good measured expansion plans in place and we are persistently working towards the same. For connecting more Tier 2 and Tier 3 cities, we are inducting more aircraft as well.

Sanjay Ghodawat University is offering new courses commencing from the

current academic year in B.Tech- Electrical and Electronics in articulation with Swinburne Australia with 3 specializations in Electric vehicle, Embedded System, Renewable Energy, M.Tech in Aerospace Engineering, B.Tech in Data Science, M.Sc in Cyber Security, Executive MBA, M.Sc in Atmospheric Science, M.Sc in Disaster Management in collaboration with Teesside University, M.Sc in Medicinal Chemistry, B.Sc in BMLT, B. Optometry and B.Sc in Food Science and Technology.

Sanjay Ghodawat IIT and Medical Academy's plan is to have 25 centres across Maharashtra and accommodate more students along with helping them avail of premium educational facilities afforded by the Academy. The Sanjay Ghodawat International School plans to extend its School branches to Pune, Bangalore and Mumbai. Our focus for all our businesses would be on forward and backward integration.

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### **GMR Aerospace and Industrial Park** A Modern Airport Based Industrial Ecosystem

GMR AeroCity Hyderabad, located at Rajiv Gandhi International Airport, Hyderabad, is a mixed-use integrated ecosystem making available multiple options for leasing across Commercial Offices, Retail, Industrial, Logistics, Educational Institutions, Healthcare, Rental Accommodation and Hospitality.

With more aerospace and industrial players looking to India to set up their operations, there is a need for specialized infrastructure providers to support the industrial growth. Leveraging GMR Group's experience in highways, energy and airport projects, the group presents 'GMR Aerospace & Industrial Park' - an industrial cluster as part of GMR AeroCity Hyderabad.

The Industrial Park is spread across 277 acres which has both Airport-based multi-

product Special Economic Zone (SEZ) and Non-SEZ land parcels. The Park also houses India's 1st and only Airport based Free Trade Warehousing Zone (FTWZ) of 20 acres within the SEZ. The Park provides 'readyto-use' common industrial infrastructure allowing companies to focus on their core business.

The Park also benefits from a dedicated Municipal Body set up for Airport related building plan approvals. The Park is well connected by air, road and rail, including robust connectivity to Seaports. The Park also has access to an operational runway for final assembly line and testing requirements of planes, UAVs and helicopters.

The Park has signed several esteemed clients such as CFM, Pratt and Whitney, Safran, Multisorb, Cyient, Global Aero Tech, Analinear, SpiceXpress, Skyroot Aerospace, SAS, Casper and Cronus Pharma, Turbojet Engines, FSTC, GMR Aero Technic, Reveuse among others.

GMR AeroCity Hyderabad is India's largest Airport based Integrated City Ecosystem spread over an area of over 1500 acres. By virtue of the AeroCity being housed within Hyderabad Airport, it enjoys greater security, 24X7 supply of utilities like power and water, proximity to Air Cargo Terminal, Hotel, affordable Transport options, Emergency Services and Food Court. An efficient supply chain management, faster turn-around time and Ease of doing business, are some of the benefits that businesses enjoy when they are part of an Airport Ecosystem.



#### **AVIATION UPDATE**

#### ENGINES & MRO

### Boeing and AIESL Announce Collaboration for Repair and Overhaul of key Indian Defence Platforms

Boeing announced an effort to explore opportunities with AI Engineering Services Ltd. (AIESL) for the Maintenance, Repair and Overhaul (MRO) of critical equipment on key Boeing defence platforms in India, including the P-8I operated by the Indian Navy and the 777 VIP aircraft operated by the Indian Air Force. The collaboration was announced at the Boeing India Aatmanirbharta in Defence conference organized in New Delhi on Tuesday, May 10, 2022, with participation from dignitaries from the Indian Navy, AIESL, and other key supplier-partners.

"Our planned collaboration with AIESL could position us to provide significant value-add to our defence customers locally by enabling faster turnaround, exceptional operational capability and mission readiness for the Indian armed forces. This is also an important step as part of our commitment to the Government of India's Aatmanirbhar Bharat vision of making India a regional MRO hub," said Surendra Ahuja, Managing Director, Boeing Defence India.

This collaboration would support the Indian Navy's growing P-8I fleet, building up the local aviation ecosystem, while ensuring quicker turnarounds for the Indian Navy. It would also help build indigenous MRO capabilities as it would bring the P-8I landing gear repair and overhaul work to India for the first time. "Such collaboration would drive forward our vision for strengthening MRO capabilities in India, for India. We remain excited and committed as we provide critical support to India's armed forces as part of the Boeing India Repair Development and Sustainment (BIRDS) hub initiative," said Sharad Agrawal, CEO, AI Engineering Services Ltd.



ExecuJet MRO Services receives approval from India's DGCA to work on earlier model of the Dassault Falcon 2000

ExecuJet MRO Services Middle East has received approval from India's Directorate General of Civil Aviation (DGCA) to perform line and base maintenance on Falcon 2000 'Classic' aircraft. The 'Classic' refers to the first model of Falcon 2000, which is equipped with a Collins Proline 4 Avionics System and powered by CFE738 engines. CFE was a joint-venture between General Electric and AlliedSignal (now part of Honeywell).

ExecuJet MRO Services' Middle East facility is already approved by India's DGCA to work on various types of aircraft registered in India, such as: Falcon 7X, Falcon 8X,



Falcon 900C/EX/EASy and Falcon 2000EASy models. This latest DGCA approval adds the Falcon 2000 "Classic" to this impressive list of capabilities.

"India is a very big and growing market for Dassault Aviation and also a very important market for ExecuJet MRO Services Middle East, thanks to geographic proximity," says Nick Weber, Regional VP Middle East at ExecuJet MRO Services. He says this latest approval from India's DGCA is significant, because about half of the Dassault business jets registered in India are the Falcon 2000 'Classic'.

"Dubai is a short flight away from India and India-registered aircraft are regular visitors for business and tourism," says Weber.

"This latest approval enables ExecuJet to better support all Indian Falcon customers operating within the region," he adds. Pratt & Whitney Canada Selects H55 as Battery Technology Collaborator for Regional Hybrid-Electric Flight Demonstrator Program



Pratt & Whitney Canada (P&WC) announced that H55 S.A. has been selected to supply battery systems for P&WC's regional hybrid-electric flight demonstrator program. The development of the battery component designs and associated

### Air Works Expands Line Maintenance Network to Dubai



India's largest independent MRO and Aviation services & solutions major Air Works, has announced that it has entered into a long-term services agreement with UAE-based Mach Technik Aircraft Maintenance to provide International Line Maintenance services at the Dubai International Airport.

The development marks the maiden expansion of Air Works' International Line Maintenance business to foreign shores. With a pan-India presence across 19 international airports, Air Works Group is already the biggest provider of Transit or electrical control systems will also be supported by the National Research Council Canada (NRC) and the Innovative Vehicle Institute (IVI).

"We're delighted to draw from H55's technology in the field of aircraft battery systems, and collaborate with NRC and IVI on optimizing the design for our hybridelectric flight demonstrator program," said Jean Thomassin, executive director new products and services, P&WC. "Hybridelectric technology holds significant potential to boost the efficiency of next generation aircraft propulsion systems, allowing us to set new standards for sustainability for regional and commuter aircraft."

The participation of H55 follows P&WC's July 2021 announcement of its plans to demonstrate hybrid-electric propulsion technology, through a \$163 million investment, supported by the governments of Canada and Quebec. Working with Raytheon Technologies sister company Collins Aerospace, and De Havilland Aircraft

Line Maintenance services to foreign carriers [airlines and cargo] operating into India. The Company holds certifications from Civil Aviation Authorities of over 25 countries to maintain both narrow body and wide body aircraft at leading airports in the country.

Commenting on the partnership, Mr. D Anand Bhaskar, Managing Director & CEO, Air Works Group said: "From certifying our maiden flight in 2011 at Trichy our first Line Maintenance station - to certifying nearly 3000 flights a month, we have come a long way. Our engagement with Mach Technik, Dubai represents a significant strategic development, as it is a testament of Air Works' decade-long investment in developing an enviable Line Maintenance service portfolio comprising expert resources, relevant certifications, and technologies. To be able to offer our services at leading international airports such as Dubai, is a matter of immense pride, given that it is one of the world's finest and busiest airport attracting the best of carriers. Dubai will therefore be ideal to test our capabilities and readiness and I am confident that together with the team at Mach Technik, Air Works will improve

of Canada Limited, P&WC is targeting a 30% improvement in fuel efficiency and commensurate reduction in CO2 emissions, compared to today's most advanced turboprop engines for regional aircraft. Collins Aerospace will provide the 1 megawatt electric motor for the hybridelectric propulsion system.

"Our goal has always been to address regional commuter transportation and with P&WC, there is a perfect fit whereby our core technologies complement each other," said André Borschberg, co-founder and executive chairman, H55. "Both companies share the same vision as to how hybrid-electric propulsion can offer a range of environmental and economic benefits. Having been selected by P&WC is an important validation that our experience is valued by a reputable industry player. We are excited to be working in Quebec with P&WC and several other industry and research collaborators in bringing our battery pack to the hybrid-electric demonstrator program."

prevailing service benchmarks, delivering enhanced value to customers."

As part of the agreement, Air Works will extend its Quality System to induct Mach Technik's certifying staff within its Quality Assurance (QA) System. Founded in Dubai in 2019, Mach Technik Aircraft Maintenance possesses a qualified and experienced team of Line Maintenance professionals. Its agility and technical prowess has won the firm many customers in a relatively short span of time.

Speaking about the partnership, Mr. Mohammed Al-Humaidi, Chairman, Mach Technik Aircraft Maintenance said: "Our collaboration with Air Works - India's leading and most loved MRO and one of the region's finest aviation services Group - will help us offer global standards of service to discerning clients – both Indian and global. With burgeoning air traffic, Dubai and other leading regional airports represent a cradle of opportunities, and beginning with Line Maintenance, we intend leveraging our mutual synergies not just within the UAE but the entire Middle East region and beyond it."

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### MoD signs over Rs 2,900 crore contract with BDL for procurement of ASTRA Mk I beyond Visual Range Air to Air Missile System & Associated Equipment for Indian Air Force & Indian Navy

In a major boost to Prime Minister Shri Narendra Modi's vision of 'Aatmanirbhar Bharat', Ministry of Defence, on May 31, 2022, signed a contract with Bharat Dynamics Limited (BDL) for supply of ASTRA MK-I Beyond Visual Range (BVR) Air to Air Missile (AAM) and associated equipment for the Indian Air Force & Indian Navy at a cost of Rs 2,971 crore under Buy (Indian-IDDM) category.

Till now, the technology to manufacture missile of this class indigenously was not available. ASTRA MK-I BVR AAM has been Indigenously Designed & Developed by Defence Research and Development Organisation (DRDO) based on the Staff Requirements issued by the Indian Air Force (IAF) catering for Beyond Visual Range as well as Close Combat Engagement reducing the dependency on foreign sources. Air to Air missile with BVR capability provides large Stand off Ranges to own fighter aircraft which can neutralise the adversary aircraft without exposing itself to adversary



Air Defence measures, thereby gaining & sustaining superiority of the Air Space. This missile is technologically and economically superior to many such imported missile systems.

ASTRA MK-I missile and all associated systems for its launch, ground handling & testing has been developed by DRDO in coordination with the IAF. The missile, for which successful trials have already been undertaken by the IAF, is fully integrated on the Su 30 MK-I fighter aircraft & will be integrated with other fighter aircraft in a phased manner, including the Light Combat Aircraft (Tejas). The Indian Navy will integrate the missile on the MiG 29K fighter aircraft.

The Transfer of Technology from DRDO to BDL for production of ASTRA MK-I missile and all associated systems has been completed and production at BDL is in progress. This project will act as a catalyst for development of Infrastructure and Testing facilities at BDL. It will also create opportunities for several MSMEs in aerospace technology for a period of at least 25 years. The project essentially embodies the spirit of 'Aatmanirbhar Bharat' and will help facilitate realising the country's journey towards self-reliance in Air to Air Missiles.

### **France Orders More TALIOS Optronic Pods from Thales**

Thales has received a firm order from the French defence procurement agency (DGA) has ordered an additional 21 Talios laser designator optronic pods, to equip Rafale aircraft in the French Air and Space Force and Rafale M platforms in service with the French Navy.

The pods will be delivered in 2024-2025, Thales announced on 6 May. The latest order will bring to 67 the total number of Talios pods in French service, to support airborne reconnaissance and targeting for attack missions.

In particular, the newly ordered 21 pods will include the Vision Permanent function (overlaying real-time video on a 3D map), a new air-to-air identification mode, a colour sensor and new tactical air reconnaissance modes under the Rafale F4 programme.



'Talios will ultimately incorporate artificial intelligence algorithms to provide an unprecedented level of assistance in target detection and recognition and further accelerate the decision-making process, particularly in high-intensity engagements,' Thales claimed.

### Boeing and Air Works Accelerate MRO Capabilities for the Indian Navy's P-8I Fleet – in India, for India

Boeing and Air Works are currently undertaking heavy maintenance checks on three P-8I long-range maritime patrol and anti-submarine warfare aircraft operated by the Indian Navy (IN) simultaneously at Air Works, Hosur. This dramatically increases the scope and scale of Maintenance, Repair and Overhaul (MRO) undertaken in the country and demonstrates both the companies' commitment in helping make India Aatmanirbhar in aerospace and defence.

Boeing India and Air Works will commemorate their collaboration at the Boeing India Aatmanirbharta in Defence Conference being organized in

### 2Excel Aviation and Israel Aerospace Industries Demonstrated IAI's Maritime Heron UAS to UK Government and Civil Observers

Israel Aerospace Industries (IAI) and 2Excel Aviation successfully completed a demonstration of IAI's Maritime Heron UAS in a series of live, Beyond Visual Line of Sight maritime search and ISR scenarios. The demonstration was based out of West Wales Airport in Aberporth, Wales. Attending the demonstration were in-person and virtual observers from the UK Ministry of Defence, Government and the Civil sector. Following the demonstration, IAI and 2Excel received positive feedback from the UK Civil Aviation Authority.

The Heron UAS was ready to fly within 36 hours of arriving at West Wales and maintained full serviceability throughout the period of the deployment. The Heron UAS achieved 100% of its planned scenarios, New Delhi on Tuesday, May 10, 2022, with participation from dignitaries from the Indian Navy, Air Works Group, and other key supplier-partners.

Surendra Ahuja, Managing Director, Boeing Defence India, said, "We are proud to build on our existing collaboration with Air Works that enables us to generate significant value for our defence customers in India, and contribute towards the Government's vision of making India an MRO hub for the region. The ongoing satisfactory execution of heavy maintenance checks on three P-8I platforms concurrently by Air Works is a remarkable achievement."

Boeing's strategic collaboration with Air Works was an important first step under the Boeing India Repair Development and Sustainment (BIRDS) hub launched last year. The BIRDS hub envisions a collaboration with key local companies and businesses to develop India into an aviation and defence repair and sustainment hub.

despite the challenging seasonal weather conditions. The system demonstrated that it is highly capable in missions including search and rescue, border protection, fisheries patrol, safety at sea, small boat detection and surveillance and other activities.

In-person attendees were able to make requests of the system, which were relayed live to the Ground Control Station (GCS) during the presentation. Rule-based scenarios were also demonstrated via IAI's Starlight data exploitation tool, which received inputs from the Heron UAS' multi-mission radar, EO/IR sensor and AIS. Points of interest were then generated using Starlight's Artificial Intelligence (AI) and data processing engine to produce Actionable Intelligence, Insights and Maritime Awareness. Data gathered was simultaneously broadcast to in-person and virtual attendees using IAI's data dissemination tool (Commander's Remote Imagery Situation Picture - CRISP).

Moshe Levy, IAI Executive Vice President and General Manager of the Military Aircraft Group, said: "The Heron>s overwhelming success throughout the demonstration is



"The heavy maintenance checks on Indian Navy's P-8I complement our vision of creating stronger and sustainable MRO capabilities, within the country. Maintaining such mission-critical platforms for the nation's defence forces is a matter of immense pride for Air Works. At the same time, it also reflects the "coming-of-age" or maturing of indigenous MRO capabilities in aviation, defence and aerospace, which can deliver huge advantages for the country. We thank Boeing for their trust in us and look forward to expanding our strategic partnership to eventually deliver operational excellence on other critical platforms of our defence forces to their complete satisfaction," said D. Anand Bhaskar, Managing Director & CEO, Air Works Group.

thanks to effective and efficient cooperation with IAI>s world-class partner at 2Excel. This demonstration signifies the growing bond between IAI and the UK industry. The Heron UAS is a cutting edge, world-class system, paired with IAI>s supportive data-gathering and analysis technology, which provides the customer with tailored solutions. I am sure this demonstration will lead to future endeavors and hope to see the Heron fly again in U.K. skies soon."

Andy Offer, Co-Founder and Director of 2Excel Aviation, said: "2Excel and IAI together demonstrated they can operate a very capable Medium Altitude Long Endurance (MALE) platform in the UK within the constraints of the current regulatory environment. It is another shining example of us being able to do difficult things well. The feedback from the UK Civil Aviation Authority was very positive and we feel confident about the roadmap for future unmanned operations across our suite of contract air services."





### SUCCESSFUL FIRING OF EXTENDED RANGE VERSION OF BRAHMOS AIR LAUNCHED MISSILE FROM SU-30 MKI AIRCRAFT

India successfully fired the Extended Range Version of BrahMos Air Launched missile from Su-30 MKI fighter aircraft. The launch from the aircraft was as planned and the missile achieved a direct hit on the designated target in the Bay of Bengal region.

It was the first launch of Extended Range version of BrahMos missile from Su-30MKI aircraft. With this, the IAF has achieved the capability to carry out precision strikes from Su-30MKI aircraft against a land/ sea target over very long ranges. The dedicated and synergetic efforts of the IAF, Indian Navy, DRDO, BAPL and HAL have proven the capability of the nation to achieve this feat. The extended range capability of the missile coupled with the high performance of the Su-30MKI aircraft gives the IAF a strategic reach and allows it to dominate the future battle fields.

### Northrop Grumman Advances F-16 Electronic Warfare Suite Integration

Northrop Grumman has received a contract from the U.S. Air Force to continue preparing the AN/ALQ-257 Integrated Viper Electronic Warfare Suite (IVEWS) for developmental test and full hardware qualification.

"We continue the process of putting IVEWS through a rigorous testing program to ensure that it will be ready to protect warfighters," said James Conroy, vice president, navigation, targeting and survivability, Northrop Grumman. "As advanced radio frequency threats proliferate, the capabilities IVEWS will provide are critical for the fourth-generation fighter fleet."

Northrop Grumman is preparing IVEWS for a series of hardware and software verification tests leading up to F-16 flights planned for later in 2022. The company will also continue development of the infrastructure needed to move the system to production once testing is complete.

In 2021, the company's IVEWS and AN/APG-

83 SABR radar demonstrated pulse-to-pulse interoperability at the Northern Lightning joint exercise, operating against a range of airborne and ground-based threats.

IVEWS leverages an open-systems, ultrawideband architecture, providing the instantaneous bandwidth needed to defeat modern threats. This F-16 system is part of a mature product line of electronic warfare capabilities that can be adapted to virtually any platform.



### Trichy Airport undergoing up gradation to offer better services

Airports Authority of India has undertaken the expansion work of Trichy Airport which includes Construction of a New Integrated Passenger Terminal Building, a new Apron, Air Traffic Control (ATC) Tower, and upgradation of Air side facilities to cater the growing passenger traffic and reduce congestion during peak hours at the airport.

The new terminal building being constructed at the cost of Rs. 951.28 Crores has been designed to process 2900 passengers during peak hours. Equipped with 48 check-in counters and 10 boarding bridges, the terminal will be an energy efficient building with sustainable features.

With an area of 75000 sq m, the new terminal building has been designed as an iconic structure of dynamic and dramatic building form with majestic roof. The interiors of the building reflect the colors and culture of the city through materials and textures in a contemporary manner.

The intuitive form of the new terminal will create a unique architectural identity in southern region and will add a new dimension to the terminal design. Strong references to the local culture and traditional architecture will be expressed by the building's architecture. Arriving and departing passengers will sense this identity and reference to the place.

The airport expansion project also includes, new apron, associated taxiways, isolation bay to make the airport suitable for Multiple Apron Ramp System i.e. five wide - body (Code E) or 10 narrow body aircraft (Code C). Other than this, construction of a Control Room, supporting Equipment Rooms, Terminal RADAR, RADAR simulation, Automation facilities, VHF, AAI offices and Meteorological offices are also the part of the project. Project also includes four-lane elevated access road connecting the Terminal Building to the city.

### New Terminal Building coming up at AAI's Port Blair Airport

Gateway to the pristine islands of Andaman & Nicobar, Veer Savarkar International Airport, Port Blair is soon going to have a new terminal building. Considering the surge in the passenger traffic, Airports Authority of India has undertaken the work for Construction of New Integrated Terminal Building at an estimated cost of around Rs.707.73 Crore.

With total built up area of 40,837 sqm. The new terminal building will be capable to handle 1200 passengers during peak hours and about 40 lakhs passengers annually. The new passenger terminal building will have three floors comprising of lower ground, upper ground and first floor. The lower ground floor will be used as remote arrival, bus lounge and service area, the upper ground floor as access to the terminal building for departure and arrival of the passengers and the first floor as Security Hold Area (SHA) for international passengers.

Inspired from nature, the design of the terminal is a shell shaped structure depicting sea and islands. New Terminal Building is a Large Span (120 Mtr) structural steel framed building provided with aluminum sheet roofing and cable net glazing all around. The entire terminal will also have 100 per cent natural lighting for 12 hours a day which will be achieved by skylights along the roof. The world-class building will be equipped with 28 check-in counters, three passenger boarding bridges and four conveyor belts. City side area of the airport will also be developed with adequate parking facilities for car,

taxi and buses along with the landscaping.

The work for construction of additional Apron area is also in progress which will add four additional bays for the parking of the aircraft. More than 80% of project work is completed and the development project is targeted to be completed by October, 2022.



Kempegowda INTERNATIONAL AIRPORT BENGALURU

# BIAL partners with Kotak and Phi Commerce to facilitate omnichannel payment solution

With an aim to facilitate a seamless payment experience for customers, Bangalore International Airport Limited (BIAL), the operator of Kempegowda International Airport, Bengaluru (BLR Airport), has introduced an innovative omnichannel payment solution across the airport ecosystem, in partnership with Kotak Mahindra Bank Limited ("KMBL"/ "Kotak") and Phi Commerce. This is a first-of-its-kind initiative undertaken by any airport in India.

The one-stop payment solution, designed specifically for the airport in partnership with KMBL and payment solutions company Phi Commerce Pvt Ltd, will enable a secure, scalable, and unified payment experience across the airport. The solution will power B2B and B2C payments across channels – both online and offline. It will facilitate transactions across the domestic terminal, international terminal, airport city, concert arena, airport hotels, retail, recreation, dining, and entertainment (RDE) destination, airport parking, cargo, and BIAL subsidiaries.

Through its own payment ecosystem, the busiest airport in South India and the third busiest in the country will now have better insights into spending patterns and be able to deliver customer-friendly last-mile promotions.

"We are pleased to partner with Phi Commerce and Kotak Mahindra Bank to bring an innovative omnichannel payments solution for our customers. The new payment experience will bring all online, in-store, and cash transactions taking place across the airport ecosystem into one single platform. BIAL wants to take all payments into a seamless and more innovative world where offline and online payment becomes a mixed reality experience which again will open new airport opportunities for the customer," said BIAL's Chief Commercial Officer, Kenneth Guldbjerg.

"True to Kotak's digital spirit, we are proud to enable payment solutions across the premises of BIAL. Kotak, in partnership with Phi Commerce, will provide all the enterprises running their businesses with point of sale (PoS) terminals and payment gateways for quick and smooth processing of payments from customers. We see great value in our partnership with BIAL," Shekhar Bhandari, President & Business Head -Global Transaction Banking, Kotak Mahindra Bank. "Kotak's partnership with BIAL will open a world of financial opportunities to clients working in the BIAL ecosystem. We are happy to collaborate with BIAL in further smoothening the financial journeys of their clients. Together, with ease in payments and Kotak's digitally-powered solutions, we will make shopping a truly enriching experience for visitors at the BIAL premises," said Puneet Kapoor, President

- Products, Alternate Channels and Customer Experience Delivery, Kotak Mahindra Bank.

"By leveraging Phi Commerce's robust omnichannel payment capabilities, we can provide a one-of-a- kind payment experience at one of the best airports in India. This payment solution is pathbreaking in its ability to provide customer delight at check-out every single time and has applicability across large retail ecosystems in the country and globally as well. We are excited to see this new payment experience come alive at the airport in Bengaluru, a city renowned for being one of the largest tech hubs in the world," said Jose Thattil, CEO and cofounder, Phi Commerce.



An International Expo & Conference on Airport Technology



**Terminal & Traffic** 

**Operation & Management** 

Airport Communication

**Airport Automation & Robotics** 

**Airport Interlogistics & Al** 

Cargo & Baggage Handling

Security & Surveillance Systems

**Green/Smart Airport Infrastructure** 



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

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

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

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

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

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







Federal Ministry for Economic Affairs and Climate Action Industry Partner

PHD CHAMBER





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# HAL MANAGEMENT ACADEMY

### About Hindustan Aeronautics limited

Hindustan Aeronautics limited (HAL) is an Indian state-owned aerospace and defence company headquartered in Bangalore, India. It is an Aeronautical giant and it is one of the largest Aeronautical Complexes in Asia with 20 Production Divisions and 11 R&D Centres. HAL is working in the field of design, manufacture, operation, maintenance and full life support for military aircrafts, Helicopters, avionics, aggregates and civil applications for the last 80 years. It is governed under the management of the Indian Ministry of Defence, Government of India.

Established in 1940, HAL has grown in leaps and bounds to today's level of more than \$3 billion revenue. The programmes underway at HAL are design and development of fourth generation fighter aircrafts, trainer aircrafts, transport aircrafts, attack helicopters, multi utility helicopters, unmanned Aerial vehicles, power plants, aggregates and avionics. HAL manufactures aero-structures for satellite launch vehicles. HAL is also involved in repair, maintenance, upgrade and life cycle support of airborne platforms and systems of Indian, Asian and Western origins.

#### About HAL Management Academy

HAL Management Academy (HMA) is a wing of Hindustan Aeronautics Limited for development of Human Resources in the Aerospace ecosystem. HMA is in the field of training fresh graduates, middle level officers and senior executives to take up challenging and leadership positions in various domains of the aviation industry.

Utilizing HAL's knowledge pool and faculty with industry experience, HMA has emerged as a Centre for Aerospace Technology and Management. It has a wealth of knowledge and experiential learning in the field of Aerospace Technology and Management. The faculty are widely experienced in various domains of the Aerospace industry and hold specialization qualifications in these domains. They are currently working on various aerospace projects and subject matter experts.

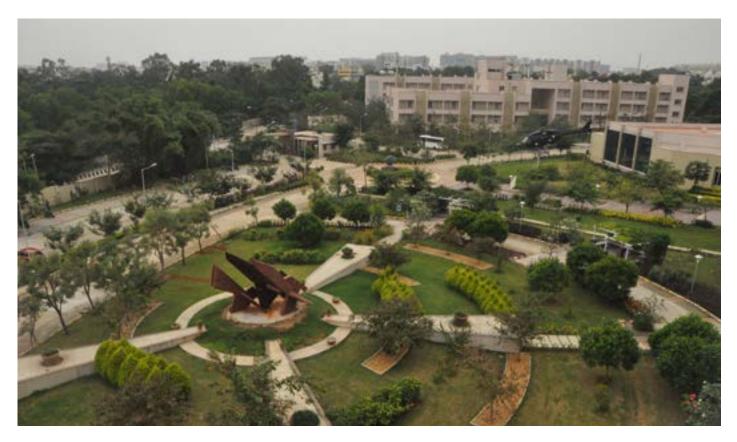
The resources of practicing professionals, scientists, Senior executives and leaders engaged in various research and manufacturing activities in the industry contribute immensely to make the learning and experiential process. The Academy has tie-ups with premier IIMs, IITs & other reputed Institutes and plays a key role in developing the Aerospace ecosystem in the country.

### Infrastructure and facilities at HMA

HMA is situated in Bengaluru close to the manufacturing facilities of HAL. Spread over 16 acres, the green campus has state-of-art classrooms, breakaway rooms, computer labs and library. In addition, the campus houses the hostel accommodation, 800 seat state-of-the-art Auditorium, meditation hall, Sports block with Gymnasium and indoor games, outdoor games facilities, swimming pool etc. HMA provides the right ambience for a holistic residential learning experience executives, professionals and students.

#### **Faculty Resources**

The reputation of HMA owes much to the exceptional calibre of its faculty. The faculty members are highly qualified with strong industrial and academic experience in their fields. The Institute prides itself on creating an environment of substantial academic freedom overlaid by rigorous, self-imposed standards of excellence and socially responsive practices. HMA faculty willingly submit themselves to a unique, rigorous, open, and continuous process of appraisal and feedback from the students.



This enables the faculty to fine tune course contents and delivery mechanisms. In keeping with the mission and objectives of the Course, HMA has also drawn domain experts for the course. The chosen team would bring the perspective of the institute and their collective experience to the course.

#### Post Graduate Diploma in Management (PGDM)

HMA has introduced Post Graduate Diploma programs approved by All India Council for Technical Education (AICTE) to cater to the needs of the growing aviation ecosystem in the region. The Post Graduate Diploma in Management (PGDM) is a 24 month, full-time residential Program approved by AICTE. The Program is conducted at the HMA Campus, Doddanekkundi, Bengaluru, Karnataka. The course includes extensive factory visits, internships, interaction with Professionals in the industry and project works guided by faculty and Industry Professionals.

The programs will have a comprehensive coverage of Aerospace industry, Aviation Management and production Management with case studies well-crafted and developed by the experienced Faculty of HAL Management Academy with deep insights gained by HAL over 80 years. The syllabus of the course is tailor made to the needs of Industry. It comprises aviation technologies, maintenance and operations, core management subjects with specific emphasis and case studies.

The PGDM programme is conducted under Various specializations:

Post graduate program in Aviation Management

Post Graduate program in Management.

Eligibility Criteria / selection process

Science / Engineering graduates with good academic scores and from recognised university.

HMA written test, Interview, Document verification.

#### **Programme Structure**

The PGDM programme of HMA is a 24 month (2 years) programme divided into 4 semesters of 6 months each. The programme is conducted at the HMA campus located in Bengaluru and is designed as a full time residential programme.

The first year of the programme (semesters 1 and 2) will cover the fundamentals of management and will be common for both specializations. The first two semesters have been designed as a mix of fundamentals and skill based courses.

This is followed by a 4 week internship in various divisions of HAL across the country.

The second year of the programme (semesters 3 and 4) will be held separately for the two specializations. The third semester will be dedicated to the specializations opted by the students. Furthermore, there will be a mix of core subjects and elective subjects. Under the elective subjects, students can choose from a basket of electives that closely match their interests.

The fourth semester will involve internships and project works with leading companies and interact with professionals to have a first-hand experience of the management aspects. Students will also carry out projects under the guidance of faculty members of HMA. The total number of credits covered in

#### **AVIATION UPDATE**

#### **CAREERS IN AVIATION**

the 4 semesters will be 102.

HMA also strongly encourages diversity of knowledge. Thus, Massive Open Online Courses (MOOCs) form an integral part of the PGDM programmes.

#### **Programme Fee**

The Programme fee is 6.5 Lakhs plus Boarding and Lodging Charges, which is approximately 2 lakh for the two years.

#### **Course content**

The academic program will consist of 102 credits. The credits will be earned for course work as well as internship and project work done during the academic program. The coursework will be divided as follows:

- Core courses, that ensure the basic understanding required for the program.
- Electives that are selected by the student in consultation with the faculty. They could bring vital interdisciplinary thinking required for the solutions of complexities arising in the Industry.

The core and elective courses will be present for the Fundamental Management subjects as well as for the chosen specialization. In addition to the above, there will also be skill based courses that will equip the student to learn industry relevant skills.

Along with the coursework, the students will also undertake internships and

project works that will critically examine the students' ability to put the acquired knowledge to practical use.

In addition to the academics, focus is given on activities for Experiential learning through outbound activities and to encourage the participants to explore within and beyond their regular curricular activities

Following are some of the subjects (in no particular order) that will be covered as part of the course:

### Certifications Included in program:

- Corporate Governance by Indian Institute of Corporate Affairs (IICA), Delhi
- Data Analytics by Indian institute of Information Technology, IIIT-Dharwad
- Industrial Engineering by National Institute of Industrial Engineering (NITIE), Mumbai
- Lean Manufacturing by Confederation of Indian Industry (Cll), Bangalore
- Six Sigma by Indian Statistical Institute (ISI), Bangalore
- Law of Arbitration & Conciliation by National Law School of India University (NLISU), Bangalore
- CNC programming & 3D printing by Central Manufacturing Technology

Institute (CMTI)

- Certified Associate in Project Management (CAPM) by Project Management Institute (PMI)
- Entrepreneurship & Innovation by Technical Services Consultancy Organisation of Karnataka (TECSOK)
- Intellectual Property Rights (IPR) by National Law School of India University (NLSIU), Bangalore

**How to Apply:** The applications for PGDM 2022 admissions will open on 15 June 2022.

To know more visit: https://hal-india.co.in/ HAL%20Management%20Academy%20 (HMA)/M\_421

or

https://sites.google.com/view/halmanagement-academy/home?authuser=1

Contact: HAL Management Academy Admissions Office: 080 25400091

+91-9561574831 / 91-9686033800

Email: open\_progs@hal-india.co.in

**Address:** HAL Management Academy, Doddanekundi Main Road, Marathahalli, Bangalore-560037.



#### PGDM ADMISSIONS OPEN



SCAN TO APPLY



## NALSAR UNIVERSITY OF LAW

DIRECTORATE OF DISTANCE EDUCATION (DDE), CENTRE FOR DISTANCE AND ONLINE EDUCATION (CDOE)

Justice City, Shameerpet, Medchal Dist., Hyderabad – 500101, Telangana, India Website: www.dde.nalsar.ac.in; www.nalsarpro.org, E-mail: ddeadmissions@nalsar.ac.in Phone: +91-40-23498405/ 404 /402 M: 70755 89600 (9:00 a.m. – 5:00 p.m.)

## ADMISSION Notification 2022-2023

### 2-Year M.A. Programme in

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- Security & Defence Laws
- Space & Telecommunication Laws
- Maritime Laws
- Criminal Law & Forensic Science
- International Taxation
- Animal Protection Laws

### One Year Advanced Diploma Programme in

- Patents Law
- Cyber Laws
- Media Laws
- International Humanitarian Law
- Alternative Dispute Resolution
- Family Dispute Resolution
- Drafting, Negotiation & Enforcement of Contracts
- Aviation Law & Air Transport Management
- GIS & Remote Sensing Laws
- Maritime Laws
- Criminal Law & Forensic Science
- Financial Services & Legislations
- Corporate Taxation
- Animal Protection Laws
- Cyber Security & Data Protection Laws

Eligibility : Any Graduate



How to Apply : Online

### Last Date to Apply: July 15, 2022

For more details and the Online Application Form visit the website





### **BACHELOR'S, MASTER'S & Ph.D PROGRAMS**

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• Ph.D

• B. Arch

- B.C.A M.C.A
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- B.Sc. M.Sc.
- M.Sc. (Medicinal Chemistry)
- Ph.D

#### **Physical Sciences**

- B.Sc. M.Sc.
- M.Tech.(Atmospheric Science) Ph.D
- M.Sc.- Disaster Management in Collaboration with
   Teesside University, UK

#### **Liberal Arts**

- B.A. Journalism & Mass Communication
- Ph.D

### Merit & Minority Scholarships are available for eligible candidates.



Kolhapur-Sangli Highway, Atigre, Dist.: Kolhapur (MH) India- 416 118. | Contact: 9011039800, 9011022567 www.sanjayghodawatuniversity.ac.in