

Aviation UPDATE

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India's premier aviation monthly magazine

Archer Rolls Out 1st Midnight Aircraft; Prepares for Flight Test

PG 18



P&WC Launches
PW545D Engine to
Power New Cessna
Citation Ascend

PG 24



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QinetiQ to Deliver Unique Banshee Jet 80+ Target System to US Army

Page 30



Etihad Cargo partners with Rotare to provide digital solution to boost customer service

Page 21

Viasat Next-Gen Ground-to-Space Encryption Solution Achieves NSA Type-1 Certification



Page 32



Silk Way West Airlines awarded IATA CEIV Lithium Batteries Certification

Page 23

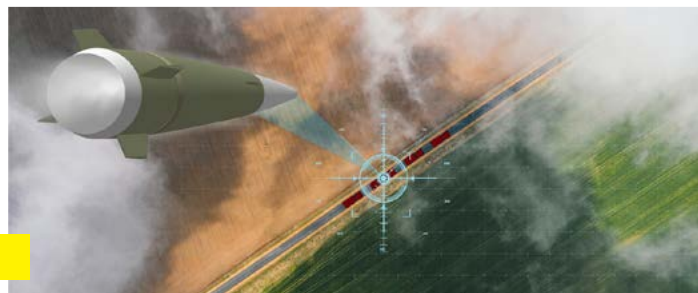


JAL to introduce first Freighter in 13 years under new business model

Page 20

US Army Awards BAE \$72.5M Precision Guided Munitions R&D Contract

Page 29



Estonia has signed a Contract with IAI to Acquire Long-range Loitering Munitions

Page 41

Aviation UPDATE

VOL : 09 | ISSUE : 9 | JUNE 2023

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B. KARTIKEYA

Hello Readers!

Aviation has been in my blood and bones, and maybe in my flesh and skin as well. My long road to success and the never-ending love for the Aviation has carried me to places I never had been before and got me in touch with finest of the people I haven't met before. Something about the amazing world of Indian Aviation has been pulling me so strong towards it ever since I visited the Air shows years ago. Crossing all the barriers and clearing all the hurdles step by step, here I am With all my love and joy, I proudly SAY we are going to celebrate our 10th Anniversary issue of our monthly magazine in September.

Both publishing and aviation have indeed seen significant upheaval. However, Aviation Update dedication to serving as your source for news, analysis, and insight into this constantly evolving field of aviation electronics will not alter. We will continue to be your go-to source for aviation news and information through our well-regarded print journal or our increasing selection of online products.

I don't know about you, but I have already started counting down the number of days to the start of a 10th Anniversary, which would obviously come down by the time I reach you with the next issues of Aviation update. Can't wait to hear my count? But you should. Running a Magazine for the last 9.9 years is really tough and Pride Job.

Now loosen up and flip through these pages to peek into the future of aviation in India and worldwide. Till you hear from me in the next issue of our beloved magazine, I take your leave by saying 'Kartikeya signing off'. Ciao...

Kartikeya B.

Star Air Commences Embraer E175 Flights

Star Air, an all-Embraer jet operator in



India, has commenced revenue flights on its first E175 aircraft. The flight took place on 13 May, with Star Air's dual-class E175 flying from Bangalore-Hyderabad-Jamnagar-Bangalore.

Star Air has leased four E175s and these aircraft will boost the airline's existing fleet of five ERJ 145s, providing the airline greater flexibility and efficiency as it grows its network. The airline flies to multiple destinations across the country, most of which are part of the UDAN scheme. Interestingly, Star Air is the first airline to offer business class seats on regional routes.

The E175 is Embraer's best-selling aircraft and one of the most-sold aircraft worldwide. In the United States, the E175 is the market leader in the up to 150-seat jet segment, and the aircraft serves a key role in stimulating the regional aviation sector with outstanding economics and performance capabilities.

The E175s add to Star Air's existing fleet of ERJ145s.

Latest Generation A220 Begins Demo Tour of Southeast Asia

Airbus has begun a demonstration tour of Southeast Asia with its latest generation A220. The aircraft arrived at the Langkawi International Airshow



(LIMA 2023) taking place in Malaysia, where it will be on static display for the first day of the show and will also undertake a demonstration flight for industry guests and members of the media.

The A220 is the most modern airliner in its size category, carrying between 100 to 160 passengers on flights of up to 3,450 nautical miles (6,400km). This would enable direct non-stop services between any two points in Malaysia and regional services to destinations afield such as Darwin and Perth in Australia, the Middle East, Tokyo and Seoul.

The A220 brings a 25% reduction in fuel consumption and carbon emissions when compared with previous-generation aircraft of a similar size. This makes an immediate contribution to industry goals to reduce the impact of aviation on the environment.

As with all Airbus aircraft, the A220 is already able to operate with up to 50% Sustainable Aviation Fuel (SAF). Airbus aims for all its aircraft to be capable of operating with 100% SAF by 2030.

The aircraft which will be on display at LIMA 2023 is leased by Airbus from airBaltic. It features a comfortable layout with 148 seats in a single-class passenger cabin. Prior to flying to Langkawi the aircraft made a stop in Kuching in Sarawak, where it was refuelled with a 10% blend of SAF, supplied by Neste.

Following the stop in Langkawi, the aircraft will continue on its tour to visit Kuala Lumpur, Jakarta, Bangkok and Koh Samui.

The A220 is available in two versions, with the -100 variant seating between 100 and 130 passengers and the larger -300 variant seating between 130 and

160 in typical layouts. It has the largest cabin, seats and windows in its class, offering passengers superior comfort. The aircraft is powered by the latest generation Pratt & Whitney PW1500G geared turbofan engines. To date, Airbus has received 785 orders for the A220 and delivered more than 260 aircraft for this Programme.

Textron Aviation Delivers 1st Passenger Unit of Cessna SkyCourier Large-utility Turboprop



Textron Aviation announced the recent delivery of the first passenger unit of the twin-engine, large-utility turboprop, the Cessna SkyCourier, for use by Western Aircraft, Inc., doing business in Hawaii as Lana'i Air. The company offers luxury air service connecting Oahu to the island of Lana'i.

"The Cessna SkyCourier is well on its way to becoming a legendary aircraft for our company," said Lannie O'Bannon, senior vice president, Global Sales and Flight Operations, Textron Aviation. "It's highly versatile, with cabin flexibility, payload capability, performance and low operating costs, and has already proven to be popular around the world." Certification and deliveries of the SkyCourier commenced in early 2022. The aircraft is a clean-sheet, custom design that brings modern solutions and unmatched value proposition to the segment.

"We're thankful for our talented team who brought the Cessna SkyCourier to life, and for customers like Lana'i Air, who see the value in this incredible

aircraft," O'Bannion said. Designed with serviceability at the forefront, the SkyCourier features simple systems and easy access points throughout the aircraft for easy maintenance. The team also developed innovative ways to optionally convert the aircraft from a 19 seat passenger configuration to cargo configuration using patent-pending quick release seats and removable bulkheads.

Malaysia's SKS Airways Selects Embraer's E195-E2 to Drive Growth



Malaysia's SKS Airways has chosen the Embraer E195-E2, the world's most efficient and quietest single-aisle aircraft, to drive its growth plans for the region. The deal for 10 E195-E2s was announced at a signing ceremony at the Langkawi International Maritime & Aerospace Exhibition (LIMA'23). The E195-E2s will form the core of SKS Airways' expansion plans and will be based at Kuala Lumpur's city airport, Subang, from 2024. The E195-E2 jet has a range of 2,600nm, the equivalent of about seven hours of flight. The aircraft will be comfortably configured with 136 seats. SKS Airways will be the first E195-E2 operator in the Southeast Asian region, growing Embraer's E-Jets presence in the broader Asia Pacific region which currently stands close to 200. The lease agreement signed between SKS Airways and Azorra, was witnessed by Yang di-Pertuan Agong of Malaysia,

His Majesty Sultan Abdullah ibni Sultan Ahmad Shah, Minister of Transport YB Tuan Loke Siew Fook, The Ambassador of Brazil to Malaysia H.E. Ary Norton de Murat Quintella, Embraer's Johann Bordais, President & CEO of Embraer Services & Support, and Martyn Holmes, CCO of Embraer Commercial Aviation. Dato' Rohman Ahmad, Director of SKS Airways, said, "This is a significant day for the future of aviation in Malaysia. We are delighted to announce the successful signing of these agreements with leading industry players like Embraer and Azorra who share our vision for the future of air travel. With these strategic partnerships, we are excited to embark on a new phase of growth, with a fleet of Embraer's Jets operating out of Subang. The prevalence of the E-Jets at city airports around the world and the low noise emissions of the E195-E2 makes the aircraft a perfect fit for flights in and out of Subang Airport – supporting the Government's aim to establish Subang Airport as Malaysia's premium city airport and aviation hub." Martyn Holmes, Chief Commercial Officer, Embraer Commercial Aviation, said, "The E2 is the aircraft family of choice for airlines around the world seeking to develop their regional routes. As the most modern and efficient single-aisle aircraft, the E195-E2 will deliver a step change for our first Malaysian operator, SKS Airways, as it grows regional connectivity within Malaysia and beyond. We welcome SKS Airways to the Embraer family and we look forward to growing our collaboration and partnerships in Malaysia as the country continues to develop as a major aerospace hub." "We are pleased to partner with SKS Airways on this unique opportunity to be a part of the future expansion of Subang Airport. We believe Embraer's new technology E2 is the perfect fit for a redeveloped, premier aviation hub near the heart of Kuala Lumpur, reducing travel times and improving connectivity in the region. The E2's fuel efficiency, carbon footprint and low

noise emissions offer a transformative, environmentally conscious jet solution for the city, the region, and its residents", said John Evans, Azorra's CEO.

Natilus Selects ZeroAvia ZA600 Hydrogen-Electric Engines for Zero-Emission Propulsion



Natilus, a leading innovator in designing and developing new autonomous blended-wing body (BWB) cargo aircraft, and ZeroAvia, the leader in zero-emission commercial aviation, have announced a strategic partnership to jointly develop hydrogen-electric engines for the Natilus Kona cargo aircraft. ZeroAvia's ZA600 will be the sole hydrogen-electric propulsion source offered for the novel Kona short-haul feeder UAV, with the partnership focused on delivering zero-emission and lower cost operations. The Natilus Kona, with its revolutionary BWB design, offers increased volume for hydrogen storage, potentially transforming the air cargo delivery industry to one with low-cost, low-carbon emissions, while also extending flight range. The partnership with ZeroAvia will leverage their expertise in hydrogen-electric powertrain technology with Natilus' unique design to create a scalable, long-range, and zero-emission air cargo delivery solution for the entire industry. Natilus recently validated the performance of the BWB design with

flight testing of a quarter-scale Kona prototype aircraft, following three years of extensive wind-tunnel testing, while ZeroAvia has now conducted eight test flights of its prototype ZA600, 600kW engine in a 19-seat testbed aircraft.

Aleksey Matyushev, Co-founder and CEO of Natilus, said: "Natilus has a long-term commitment to being a responsible steward of our environment, instituting practices that can protect the environment through continual improvements to save fuel and water, reduce waste, air emissions, noise, and material consumption. The Natilus-ZeroAvia partnership goes further, bringing the talents and innovations of the two companies together to deliver much-needed innovation in the air cargo delivery industry and multiple solutions for our customers."

Val Miftakhov, Founder and CEO of ZeroAvia, said: "Given Natilus' impressive order book and corresponding technology development, working together on integrating the ZA600 as a line-fit engine for Kona can multiply the emissions and costs benefits that are already interesting cargo operators. We all depend on air cargo operators, and some communities depend on them absolutely, so improving the economics and environmental impacts of these operations while increasing service levels is a massive opportunity."

ZeroAvia has demonstrated a prototype of the ZA600 with world-first flight testing of a retrofitted 19-seat aircraft in flight with its prototype. The company has twice held the record for demonstrating the largest hydrogen fuel cell aircraft and has struck several important agreements with airframe OEMs relevant to ZA600 – including Textron Aviation, manufacturer of the Cessna Caravan, and private aircraft manufacturer Otto Aviation.

Scot Selects Embraer E190-E2 to Boost Connectivity and Unlock



Growth in the Region

Singapore Airlines' low-cost subsidiary, Scoot, has selected the Embraer E190-E2 to unlock growth in the region. Nine E190-E2 will join Scoot's fleet in a lease arrangement with Azorra. The first delivery of the E190-E2, the quietest and most fuel-efficient aircraft under 150 seats, is scheduled for delivery in 2024. The aircraft will come from Azorra's existing backlog with Embraer.

Mr Leslie Thng, Scoot's Chief Executive Officer, said, "The agreement to include nine new E190-E2 aircraft in our fleet allows us to continue operating a modern and fuel-efficient fleet, and support our network growth strategy by serving thinner routes to non-metro destinations out of Singapore. As the first Singaporean carrier to operate the E2s, we are excited to be working with our partners at Embraer to improve our network connectivity and increase travel options for our customers."

"We are thrilled to support Scoot and its exciting expansion plan to serve more short and medium haul flights across Southeast Asia", said John Evans, Azorra's CEO. "Scoot's selection of the E2 is a resounding endorsement of Embraer's E2 product line and the crossover segment. With the addition of E2s, Scoot becomes the first Singapore-based airline to operate crossover aircraft, demonstrating the emerging capacity rationalization trend amongst operators globally."

Arjan Meijer, CEO Embraer Commercial Aviation, said, "We welcome Scoot as the region's first major operator of the E2. The team at our APAC headquarters in Singapore is proud to support the airline in its quest to enhance

connectivity and growth in the region, supporting the further development of its Singapore hub. This is the value the E2 brings to airlines - complementing larger narrow bodies to grow and maintain networks. Passengers will enjoy the unique comfort of Embraer's signature two by two seat configuration and modern interior. Work is already underway to prepare for the aircraft's entry into service."

Avolon Delivers 100th Airbus A320neo to Cebu Pacific



Avolon, the international aircraft leasing company, announces it has completed the delivery of its 100th Airbus A320neo. The delivery to Cebu Pacific is the second A320neo delivery under an agreement made earlier this year for the Philippines low-cost carrier to lease three new A320neos. The third aircraft is scheduled to be delivered later this month following which Avolon will have 12 aircraft on lease with Cebu Pacific.

Avolon is on track to hit its target of its fleet comprising 75% new technology aircraft by 2025, and has a significant order book pipeline for the A320neo family of aircraft (A320neo/A321neo), with commitments to purchase a further 184 of this aircraft type as at March 31 2023. The A320neo delivers 20% fuel savings and CO2 reduction compared to previous-generation Airbus aircraft.

Paul Geaney, President and Chief Commercial Officer, Avolon commented: "As one of the largest A320neo family aircraft customers,

today's announcement marks an important milestone in our long-standing partnership with Airbus. We are also delighted to further strengthen our relationship with Cebu Pacific, supporting both the evolution of its fleet and sustainability objectives. It is great to see our customers in Asia increasing their fleet size to meet the high demand for travel in the region." Alex Reyes, Chief Strategy Officer, Cebu Pacific commented: "The delivery of this latest A320neo aircraft reflects our continued progress towards our goal of transitioning to a more fuel-efficient fleet. We are looking forward to completing this delivery order with Avolon, which will help further strengthening our position as one of Asia Pacific's leading low-cost carriers."

Swedish Leasing Company Rockton to Buy Up to 40 ES-30 Airplanes from Heart Aerospace



Swedish investment and aircraft leasing company Rockton will acquire up to 40 of Heart Aerospace's regional electric airplane, the ES-30, converting an earlier letter of intent with the Swedish airplane maker into firm purchase orders for 20 airplanes with purchase rights for 20 more. Leasing companies together own more than half of the global airplane fleet, making them a key stakeholder in the industry's transition to new and more sustainable technologies. Rockton is exclusively focused on investments in new technology mitigating aviation's negative climate effects and says the industry's target to reach net zero by

2050 is stoking demand for sustainable solutions.

"The industry's interest and need to enable a sustainable transition is increasing by the day and the ES-30 is the most promising technology available for the regional aircraft segment. Its reserve-hybrid configuration enables a meaningful range and payload for the commercial airline market and the airplane will be continuously upgraded as new improved battery technology becomes available, making it an asset with enhanced performance the longer you own it," says Niklas Lund, chief executive of Rockton.

The ES-30 is a regional electric airplane with a standard seating capacity of 30 passengers driven by electric motors with battery derived energy. It will have a fully electric zero emissions range of 200 kilometers, an extended hybrid range of 400 kilometers with 30 passengers and flexibility to fly up to 800 kilometers with 25 passengers, all including typical airline reserves. The plan is for the ES-30 to enter into service in 2028.

"The Nordic region will be a leader in the adoption of electric aviation with several concrete infrastructure projects already underway. As a Swedish leasing company, Rockton is clearly a part of this pioneering spirit and we're happy to have them as a partner," said Simon Newitt, Chief Commercial Officer, Heart Aerospace.

Heart Aerospace now has a total of 250 firm orders for the ES-30, with options and purchase rights for an additional 120 planes. The company also has letters of intent for a further 91 airplanes.

Ryanair Places Its Biggest Boeing Order for up to 300 737 MAX Jets

Boeing and Ryanair announced Europe's leading low-cost airline has selected the largest 737 MAX model to power its future growth with an order



for up to 300 airplanes. The purchase agreement is the biggest in Ryanair's history and includes a firm order for 150 737-10 jets and options for 150 more.

Ryanair has deployed a growing fleet of 737-8-200 airplanes to accelerate its post-pandemic recovery and meet strong travel demand. The 197-seat 737-8-200 model has helped the airline reduce fuel use and emissions by over 20% compared to the airplanes they are replacing. The new order adds the larger 737-10 variant, which offers Ryanair 228 seats and the best unit economics of any single-aisle airplane.

"Ryanair is pleased to sign this record aircraft order for up to 300 MAX 10s with our aircraft partner Boeing. These new, fuel efficient, greener technology aircraft offer 21% more seats, burn 20% less fuel and are 50% quieter than our B737-NGs," said Michael O'Leary, Ryanair's Group CEO.

"We expect half of this order will replace older NGs while the remaining 150 aircraft will facilitate controlled, sustainable growth to just over 300m guests per annum by 2034. This order, coupled with our remaining Gamechanger deliveries, will create 10,000 new jobs for highly paid aviation professionals over the next decade, and these jobs will be generated across all of Europe's main economies where Ryanair is currently the No.1 or No.2 airline," O'Leary said.

"In addition to delivering significant revenue and market growth opportunities across Europe, we expect these new larger more efficient aircraft to drive further unit cost savings, which will be passed on to passengers in lower air fares. The extra seats, lower fuel burn and more competitive aircraft pricing supported by our strong balance

sheet, will widen the cost gap between Ryanair and competitor EU airlines for many years to come, making the Boeing MAX 10 the ideal growth aircraft order for Ryanair, our passengers, our people and our shareholders."

"The Boeing-Ryanair partnership is one of the most productive in commercial aviation history, enabling both companies to succeed and expand affordable travel to hundreds of millions of people," said Boeing President and CEO Dave Calhoun. "Nearly a quarter century after our companies signed our first direct airplane purchase, this landmark deal will further strengthen our partnership. We are committed to delivering for Ryanair and helping the airline group achieve its goals."

Philippine Airlines Selects A350-1000 for Future Long Haul Fleet



Philippine Airlines (PAL) has signed a Memorandum of Understanding (MoU) with Airbus for the purchase of nine A350-1000s. Under the Philippine carrier's Ultra Long Haul Fleet project, the A350-1000 will be operated on non-stop services from Manila to North America, including to the East Coast of the US and Canada.

The new aircraft will join two A350-900s already in service at the airline and currently flying to destinations in

North America, Asia and Australia. As with the A350-900, the PAL A350-1000s will be configured in a premium layout with separate Business Class, Premium Economy and Economy Class cabins.

Captain Stanley K. Ng, President and Chief Operating Officer of Philippine Airlines, said that the range of the A350-1000 would enable the airline to fly non-stop transpacific and transpolar routes in both directions all year. These will include some of the longest commercial flights in the world, such as those linking the Philippines with New York and Toronto. With an expanded A350 fleet, PAL will have the ability to once again provide a direct link from the Philippines to Europe.

"The A350-1000 combines greater range capability with the higher capacity we need to serve future demand. It's the perfect aircraft to enable PAL to meet its expansion plans in a sustainable way, while offering passengers the highest levels of onboard comfort. We are committed to offering our passengers the best possible travel experience, and these state-of-the-art aircraft will enable us to do just that as we carry out our mission to connect the world, and grow trade and tourism."

Christian Scherer, Airbus Chief Commercial Officer, said: "Flying passengers farther and in greater comfort, the A350 brings a step-change in fuel efficiency and an immediate significant contribution to reduced emissions. These are the attributes that have made the A350 the choice of leading airlines worldwide. We look forward to working closely with our long-standing customer Philippine Airlines as it moves forward with its long haul fleet modernisation programme."

Alaska Airlines and ZeroAvia developing world's largest zero-emission aircraft

Alaska Airlines presented a Bombardier



Q400 regional turboprop to ZeroAvia that will be retrofitted with a hydrogen-electric propulsion system in an effort to expand the reach and applicability of zero emissions flight technology.

At an event held at ZeroAvia's Paine Field research and development site, the companies were joined by high school students from Raisbeck Aviation High School, Washington State Governor Jay Inslee, Congresswoman Suzan DelBene and Snohomish County Executive Dave Somers to participate in the formal handover of the 76-seat Q400 aircraft that will be developed by ZeroAvia, the U.S.-headquartered leader in designing and building zero-emission, hydrogen-electric aircraft propulsion systems for aircraft.

When Alaska Airlines' regional carrier Horizon Air retired its Q400 fleet, it reserved one of the aircraft for research and development purposes to further advance zero emissions technology for the aviation industry. The aircraft was repainted with a special livery to highlight the innovative mission of this partnership.

ZeroAvia also debuted its breakthrough multi-megawatt modular electric motor system in a 1.8MW prototype configuration at the event – demonstrated with a propeller spin aboard the ZeroAvia's 15-ton

HyperTruck ground-test rig. Combined with higher temperature PEM fuel cells and advanced power electronics – both technologies that ZeroAvia is developing in-house – the leading-edge electric motor technology is one of three key building blocks for enabling commercially-relevant hydrogen fuel cell engines for larger aircraft

Ben Minicucci, Alaska Airlines CEO, said: "This is a great step forward in aviation innovation, to help create a new future of flight – right here at home. Alaska Airlines has defined a five-part journey to achieve net zero carbon emissions long-term, but we can't get there alone. New technologies are required to make that future possible, and we're thrilled to partner with industry leader ZeroAvia to make new zero emissions options a reality."

Aligning ZeroAvia's powertrain with the Dash 8-400 airframe will represent a commercially viable zero-emission aircraft with fuel cell engine technology around five times more powerful than what has been demonstrated anywhere to date.

Val Miftakhov, CEO and founder of ZeroAvia, said: "Demonstrating this size of aircraft in flight, powered entirely by novel propulsion, and would have been unthinkable a few years ago. Launching this program puts us on track for a test flight next year, and accelerates our progress toward the future of zero-emission flight for Alaska Airlines and for the world at large."

Flydubai Unveils "The Business Suite" Made by Safran

For the 2023 edition of the Arabian Travel Market exhibition, an international travel and tourism event, Dubai-based carrier flydubai has chosen to unveil "The Business Suite", a highly customised premium business class seat based on Safran's VUE platform. Flydubai's interpretation of VUE will be



introduced to a select number of the carrier's fleet of Boeing 737 aircraft. The new premium business class offering will initially be introduced on aircraft operating on longer haul flights.

flydubai is the launch customer of this brand-new seat for the platform. Close collaboration with JPA Design, a multinational design company operating in the transportation, interiors, and product design arenas, has resulted in a uniquely flydubai, and best-in-class business class seating product. The first aircraft is expected to enter into service by end of the year.

VUE is designed to offer passengers a similar experience to that of the most comfortable wide-body airplanes while maintaining an efficient cabin layout. The name VUE stems from the window-facing experience it delivers, giving each passenger an enjoyable view at all times thanks to reverse herringbone seats layout. This new seat will allow each passenger to benefit from a high degree of privacy, direct aisle access and a long lie-flat bed, setting new standards for single-aisle business

class travel in the region. The seat selected by flydubai will be equipped with features such as a door, a wireless charger and customized storage areas. It features a 17.3" RAVE Ultra IFE screen manufactured by Safran.

"flydubai is committed to investing in innovation and enhancing our customer experience. The introduction of the new Business Suite seat later this year, will offer our passengers added comfort, privacy and the benefits of the latest technologies when they travel with us on longer flights across our growing network." Ghaith Al Ghaith, Chief Executive Officer of flydubai

"We are very excited to have flydubai as our launch customer for the VUE seat, it has been an exciting journey working together to bring this product to the market for the first time on a Boeing aircraft. flydubai will operate with an outstanding business class seat designed for the best onboard experience on single-aisle longer haul flights". Victoria Foy, Chief Executive Officer of Safran Seats

Hong Kong Airport opens first autonomous store, travelwell

Hong Kong International Airport (HKIA) has unveiled an autonomous convenience store, travelwell, which offers instant grab-and-go purchases. Passengers can choose from a range of products and will only need to tap their credit card at the entrance before making their way around the monitored store.

The store is strategically located at the entrance to the Sky Bridge near gate 24. Covering 80m², travelwell offers a selection of packaged food, beverages, souvenirs and travel essentials.

Passengers can shop at travelwell by tapping their credit card at the entrance to enter the store. Using IoT sensing technology, the store tracks customers' movements and shopping patterns, automatically detecting the items they select and eliminating the need for checkout queues. When they're ready to leave, the sensor will detect the items they've purchased, and their credit card will be charged accordingly. Passengers can then print a receipt, if required, at the store's exit gate.



"The first-ever autonomous store at HKIA is creating a buzz with its seamless shopping experience for travelers on the go," said Alby Tsang, head of retail and advertising of Airport Authority Hong Kong, "As a smart airport, we have always been committed to using the latest innovations and technologies to elevate the passenger experience. The launch of travelwell demonstrates this commitment. By using breakthrough technologies, we provide passengers with a one-stop shop for pre-flight necessities and last-minute shopping. It's just one more way that HKIA is staying at the forefront of travel retail innovation to redefine airport shopping experiences."

Séverine Lanthier, chief operating officer Asia and group chief strategy and development officer at Lagardère Travel Retail, commented, "We are grateful to have benefitted from the support of the Airport Authority Hong Kong and of business partners to pioneer this technology-led, innovative new store. Our travelwell store and the beautiful Sky Bridge are a natural fit to each other. I hope the new shopping experience will appeal to travellers and become a memorable part of their journey. This project represents a key milestone in our ambitious roadmap to innovate to elevate the traveller shopping experience."

Mumbai Airport introduces 'Taxiway Z' to improve efficiency and sustainability

Chhatrapati Shivaji Maharaj International Airport (CSMIA) is leading the way in innovation and operational excellence with a first-of-its-kind commissioning of 'Taxiway Z'. 'Taxiway Z' is an extension of the existing taxiway P that augments the airside efficiency and substantially lowers carbon emissions.

The new taxiway significantly cuts the taxi time, thus benefitting both the airlines and the passengers. CSMIA's diligent and efficient team was the driving force behind Taxiway Z's innovative concept and has received all necessary approvals by the Directorate General of Civil Aviation (DGCA).

This new capacity enhancement with Taxiway Z makes CSMIA the first in the Asian region to offer a flexible-use apron, allowing the taxiway and parking stand



to be used interchangeably. Moreover, by reducing holding time for arrival aircraft, this innovative approach is expected to result in a significant improvement in on-time performance (OTP) by reducing the entry and exit time for the aircraft, thus benefitting both passengers and airlines alike.

This pioneering development at CSMIA is a sustainable move as it allows for a drastic

cut down in the total taxi time post landing and reduces the carbon footprint, thus reinforcing CSMIA's commitment towards sustainability.

CSMIA's Taxiway Z has been made fully operational paving the way for the airport to become a global leader in sustainable airport operations while setting new benchmarks for efficiency.

Sydney Airport launches tripsim – offering affordable overseas data plans



Sydney Airport has launched tripsim, a brand-new travel companion to help Australians stay connected while overseas. Tripsim offers affordable data bundles for over 150 countries without the need to swap out a physical SIM card or change phone numbers.

Sign-up and installation takes just minutes and data plans are available for passengers departing Australia for use across multiple countries. For example, the European bundle covers 35 countries including the United Kingdom and the Asia bundle works in 14 countries including Indonesia, Singapore, Thailand and New Zealand.

Total tripsim bundle prices vary depending on the travel destinations and size of the data plan. For example, if a traveller is headed to Europe for 30 days and wants 20GB of data it would cost \$44.99, which works out at \$1.50 per day. However, if they choose a 10GB bundle for their trip it would cost \$29.99, that's \$1 per

day.

Mark Zaouk, Sydney Airport's Executive General Manager of Commercial, said: "We are always looking for ways to support our passengers in the terminals, but this is the first time we have offered a product to enhance their entire holiday experience."

"Every year millions of Australians fly out of our T1 international terminal and we're proud to deliver a new affordable product to help them stay connected while travelling overseas," he said.

Sydney Airport has partnered with eSIM Go to enable the tripsim offering.

Sydney Airport Head of Commercial Analytics, Michael Brown, said: "International data roaming can be expensive, and our research shows many people search online for low-cost alternatives, which is why we've launched tripsim."

"It's simple to install and offers an economical way for Australians to use their devices while overseas without the

hassle of switching out SIM cards and phone numbers," he said.

"Travellers can choose from tripsim data bundles that collectively cover more than 150 countries. Whether you're headed to popular holiday destinations like New Zealand, Bali, Europe, the U.S. or planning an intrepid journey around the globe, there's a data bundle to suit.

"You can compare plans on our easy-to-use website by simply typing in where you plan to travel and on what dates.

"Tripsim is not just available for passengers flying through Sydney Airport, Aussies headed overseas from any city can sign-up online.

"When you arrive home from an amazing overseas holiday and get slugged with an eye-watering roaming bill, it can quickly dull your post-holiday glow, especially for families travelling with multiple devices. Tripsim is an innovative and cost-effective alternative, and we hope it'll shake-up the way Australians roam while overseas," he said.

Kanpur Airport's New Civil Enclave inaugurated



In line with the Government's commitment to ushering in 'development through connectivity,' Kanpur – the commercial capital of Uttar Pradesh is all set to get a new Civil Enclave. The new Civil Enclave at Kanpur Airport will be inaugurated on May 26 by Shri Yogi Adityanath, Chief Minister, Uttar Pradesh, and Shri Jyotiraditya M. Scindia, Union Minister for Civil Aviation and Steel.

Shri Yogi Adityanath, Chief Minister, Uttar Pradesh, and Shri Jyotiraditya Scindia, Union Minister for Civil Aviation and Steel will proceed to Kanpur airport for the inauguration of the new terminal together after unveiling the statue of Late Madhavrao Jivajirao Scindia in Mainpuri.

Key features of the New Terminal Building include:

- The New Terminal Building is built in an area of 6243 sqm (16 times bigger than the existing terminal) at a project cost of Rs. 150 Crore.

- Equipped to handle 400 passengers during peak hours, as compared to 50 passengers earlier.

- 08 check-in counters, ensuring efficient and expedited check-in processes for passengers.

03 conveyor belts, with one located in the Departure Hall and two in the Arrival Hall, facilitating smooth baggage handling and collection.

A spacious concessionaire area covering

850 square meters, offering a diverse range of retail and dining options for travellers.

Tactile path provisions have been made, ensuring accessibility and ease of navigation for passengers with visual impairments.

On the city side of the terminal, there are 150 car parking spaces and 02 bus parking spaces, ensuring ample parking facilities for commuters.

Newly developed apron is suitable for parking three A-321/ B-737 types of aircraft along with a new link Taxi Track of 713m X 23m.

General (Dr.) V. K. Singh (Retd.), Union Minister of State for Civil Aviation and Road Transport and Highways, Shri. Satish Mahana, Speaker, Uttar Pradesh Legislative Assembly, Shri Nand Gopal Gupta 'Nandi', Minister for Industrial Development, Export Promotion, NRI and Investment Promotion and Members of Parliament, Government of Uttar Pradesh, Shri Devendra Singh, MP (Lok Sabha) Shri. Satyadev Pachauri, MP (Lok Sabha) and Smt. Pramila Pandey, Mayor, Kanpur Municipal Corporation, and other senior dignitaries will also be present at the event.

Kanpur is a prominent hub for leather, textile, and defense production industries, has many historical and holy spots, and houses various premier educational institutions like IIT Kanpur, National Sugar Institute, UP Leather and Textile Technology Institute that attract air travelers in large numbers. At

present, Kanpur Airport is directly connected to Mumbai and Bengaluru. With improved facilities, Kanpur, which is often referred to as 'the Manchester of Uttar Pradesh', is likely to be connected to more cities of Uttar Pradesh and other parts of the country.

The terminal Building of the new civil enclave at Kanpur Airport is equipped with various sustainability features like a double insulated roofing system, provision of canopies for energy saving, LED lighting, low heat gain double glazing unit, rainwater harvesting to recharge the groundwater table, water treatment plant, sewage treatment plant and use of recycled water for landscaping, a solar power plant with capacity of 100 KWp and has been provided to meet GRIHA-IV ratings, a national green building rating system in the country denoting sustainable development and responsible resource management.

The façade of the Terminal Building in both the city and the airside depicts the temple architecture of the famous JK Temple of Kanpur. The interiors of the Terminal Building are based on various local themes such as textiles, leather industries and the city's renowned public figures like poet Shyamlal Gupta and sage Maharishi Valmiki. The terminal has been designed to integrate the culture and heritage of Kanpur, and the state of Uttar Pradesh, thereby, creating a sense of the culture and history of the region for the visitors.

Hamad International Airport selects DataDirect Networks Storage Systems to modernize security plans



Hamad International Airport is offering an unparalleled airport journey for travellers with optimised operations, innovative experiences, luxury retail and F&B offering and the highest safety standards. Hamad International Airport has selected DataDirect Networks (DDN) to provide advanced data storage solutions to enhance security measures.

Hamad International Airport commenced Phase B of its expansion plan in January, which will increase the airport capacity to over 70 million passengers annually. With this enormous volume of travellers, close-circuit television (CCTV) is an essential part of the passenger safety infrastructure for the airport. DDN's solutions were chosen because of their unique combination of performance, scalability and cost effectiveness. DDN's high performance EXAScaler 7990 systems with IntelliFlash 6200 systems were implemented to meet both primary and secondary recordings with

100+ Petabytes of storage capacity.

Suhail Kadri, Senior Vice President Technology & Innovation, at Hamad International Airport said, "As the airport continues to grow rapidly, safety and security of our passengers travelling to, from and through Hamad International Airport remains a top priority. Data is an integral enabler for our digital transformation agenda, hence partnering with DDN, which has a strong understanding of modern data storage demands, supports our commitment towards offering an innovative, safe and smart airport experience."

At the start of 2018, DDN made a multi-year, multi-million-dollar investments in the State of Qatar by establishing local sales and support team, a state-of-the-art performance and compatibility test lab, and partnerships with the best regional technology organisations. Hamad International Airport's decision to select DDN confirms the prudence of this commitment and is a prime example of the unprecedented surge

in demand for content optimised storage technology and DDN's leadership in this data-intensive market.

"We are very excited to support Hamad International Airport and provide solutions to its complex scale-out storage and IT requirements," said Dipl. Eng. Laurent Thiers, VP, DDN Storage. "With over 100 petabytes of our File and Block Storage systems already delivered, DDN answers the challenge by providing storage systems that deliver unrivalled throughput, reliability, scalable capacity and consistency."

"DDN is very pleased to be a technology partner for Hamad International Airport, as it is at the forefront of high-resolution camera deployments," continued Laurent. "DDN's solutions can confidently, diligently, and easily deploy truly scalable storage systems and efficiently and safely implement online video archives designed to hold months-to-years of security camera with significantly fewer systems, less network infrastructure, space and power."

UAM Industry 1st: Volocopter Integrates Swiss-AS AMOS Software into Its Operations Ecosystem



Swiss Aviation Software (Swiss-AS) and Volocopter cosigned a landmark multi-year contract for AMOS, Swiss-AS's maintenance, repair, and overhaul (MRO) software. AMOS will be used to manage Volocopter's electric vertical takeoff and landing (eVTOL) aircraft fleet worldwide. Seamless software integration will ensure continued fleet airworthiness, offer aircraft reliability monitoring and analysis, and act as an interface to Volocopter's proprietary digital operating system, the VoloIQ. This is the first time Swiss-AS is collaborating in an urban air mobility (UAM) setting, a key development as Volocopter prepares for entry into service in 2024.

As the UAM industry pioneer, Volocopter is set to receive type certification (TC) in 2024 for its VoloCity, a 2-seater electric air taxi built for city use. The company will be the first to launch commercial services in Europe that meet the same very high safety standards commercial airliners must satisfy. Besides product certification, a successful industry launch and future operations scale-up require a solid UAM ecosystem. Plus, eVTOL fleets in global megacities will need to deliver fast turnaround times to maximize vertiport and airport space and provide an efficient customer service.

AMOS excels at managing vehicle

configuration traceability throughout its life cycle, a critical aspect of proper aircraft fleet maintenance. Further such aspects include component design/purchase dates, installation/replacement dates, and total operating hours. AMOS will also monitor ground handling operations, deploy the relevant tools, and manage ground staff assignments. Ground technicians will use AMOSmobile/EXEC, a touch-optimized mobile maintenance solution for "live" data streams. Further, artificial intelligence (AI) will enable reliability monitoring to improve fleet management efficiency.

Meanwhile, Volocopter's VoloIQ backbone will monitor customer-facing services like the booking process, as well as aircraft location and status, and battery health. Interlinking Volocopter's air- and ground-side operations will create a fast, transparent, and safe fleet management system to support eVTOL operations scaling.

Fabiano Faccoli — Chief Executive Officer of Swiss Aviation Software: "We are looking forward to stepping into the future of urban air mobility with Volocopter. Signing with Volocopter is confirmation that AMOS stands for innovation! All Swiss-AS employees received the news with excitement and we look forward to cooperating with the

UAM pioneer Volocopter, who is designing the customer journey from A to Z while complying with the highest safety standards."

Oliver Reinhardt — Volocopter's Chief Risk and Certification Officer: "With Swiss-AS as a partner, Volocopter is making strides to ensure that the maintenance of our VoloCity is managed and executed efficiently and foolproof. The AMOS software has a proven track record in the aviation industry — giving us confidence to obtain our Continuing Airworthiness Management Organisation (CAMO) and Maintenance Organisation Approval (MOA), which is essential for our entry into service. Its compatibility with our VoloIQ is a must-have to provide outstanding customer service."

Seamless and efficient maintenance and ground-side operations ensure the safety of passengers, ground crew, and aircraft, simultaneously enabling the fast scaling of the UAM ecosystem. Volocopter is strengthening all areas of its ecosystem: product certification, production, air- and now maintenance and ground-side operations. This industry-first collaboration between Swiss-AS and Volocopter will build the foundation and deliver best practices that will permit ongoing improvements to future eVTOL operations.

VoltAero Signs MoU with the Swiss-based SKY2SHARE Business Mobility Provider



VoltAero's customer base for its Cassio aircraft family has further expanded with a pre-order for 15 of its electric-hybrid airplanes from SKY2SHARE, a Swiss-based aviation company that offers fractional ownership and is focused on radically decreasing the CO2 footprint of its operations.

This commitment begins with the five-seat Cassio 330, while also incorporating the flexibility for SKY2SHARE to incorporate the six-seat Cassio 480 and 12-seat Cassio 600 versions. The pre-order was announced today at EBACE in Geneva, Switzerland. VoltAero and SKY2SHARE share a joint exhibit in the Palexpo convention centre's Innovation Zone Pavilion (Exhibit Hall 4-6, Booth #A20).

With this latest agreement, VoltAero has now lined up a total of 218 orders and commitments for its Cassio airplane product line.

"Cassio is perfectly tailored for SKY2SHARE's ambitious goal of providing productive and environmentally conscious

mobility services that reduce business aviation's environmental footprint," said Jean Botti, VoltAero's CEO & Chief Technology Officer.

Selim Franko, SKY2SHARE Co-founder and the company's CEO, added: "We are impressed with VoltAero's progress in developing the Cassio aircraft family's "clean sheet" design, which offers the right solution for our economically-viable and socially-responsible services as a truly sustainable alternative to traditional business aviation. We are thrilled that the Cassio family will allow us to radically reduce the environmental impact of our operations."

VoltAero's airframe configuration for Cassio is based on a sleek, aerodynamically-optimized fuselage, a forward fixed canard, and an aft-set wing with twin booms that support a high-set horizontal tail. By integrating VoltAero's patented electric-hybrid propulsion system into the company's purpose-designed airframe, the Cassio aircraft family will deliver an order of magnitude higher performance as compared

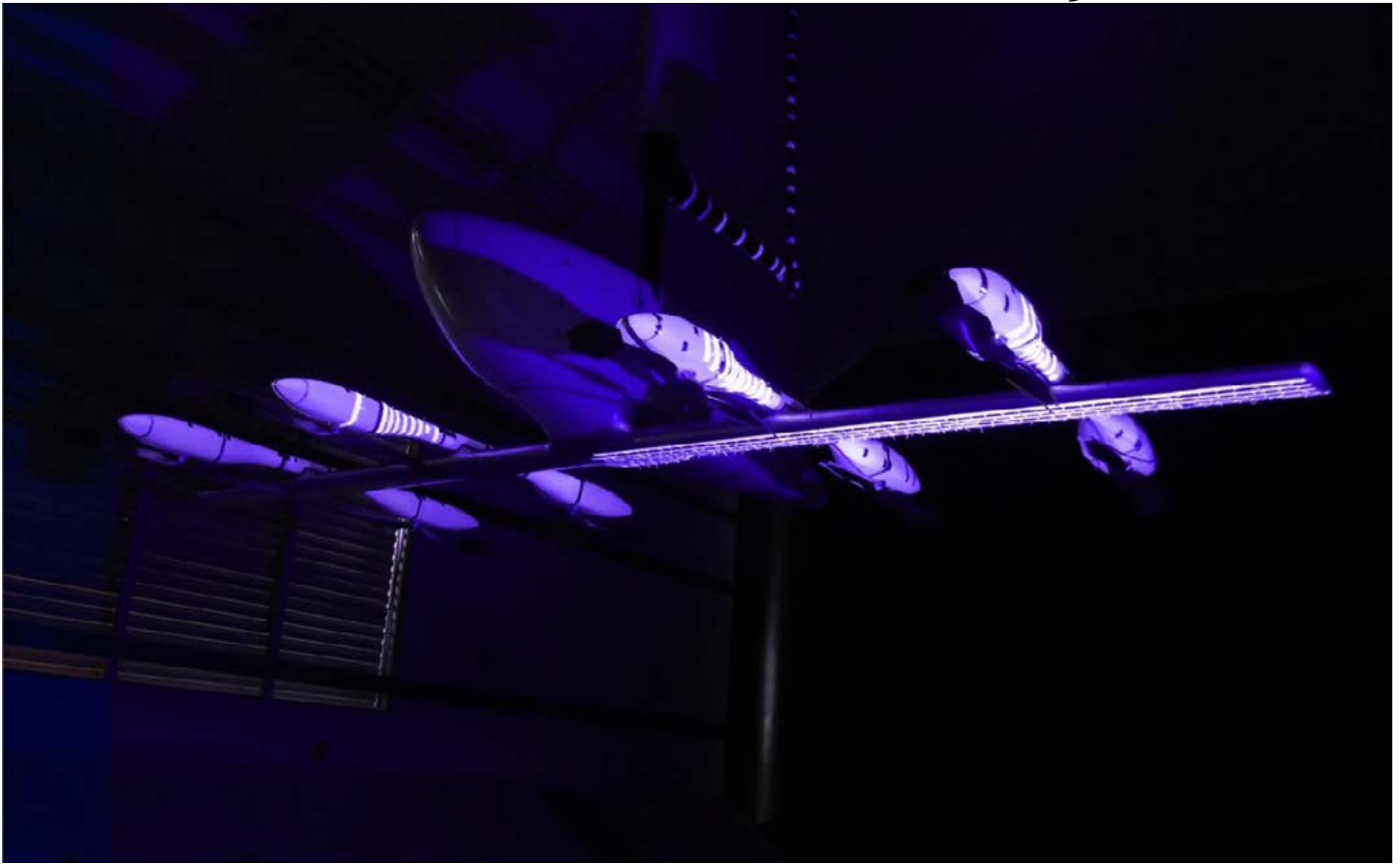
to the current competition, and provide significantly lower operational costs.

Production Cassio airplanes will be built in three versions, each sharing a high degree of modularity and commonality. The family will provide a highly capable and reliable product line for charter companies, regional commercial operators and private owners, as well as in utility-category service for cargo, postal delivery, and medical evacuation (Medevac) applications.

First to enter service will be the Cassio 330, with five seats and powered by the 330-kilowatt electric-hybrid propulsion system. VoltAero's follow-on six-seat Cassio 480 will have an electric-hybrid propulsion power of 480 kilowatts, while the Cassio 600 is sized at a 12-seat capacity with electric-hybrid propulsion power of 600 kilowatts.

VoltAero is headquartered at the Aérodrôme de Royan-Médis in southwest France, and its Cassio aircraft are to undergo final assembly in a purpose-built facility at the Rochefort Charente-Maritime Airport in France's Nouvelle-Aquitaine region.

Eve Air Mobility Completes eVTOL Wind Tunnel Testing



Eve Air Mobility recently completed wind tunnel testing of its electric vertical takeoff and landing (eVTOL) vehicle. The testing, which was conducted at a wind tunnel near Lucerne, Switzerland, utilized a scale model of Eve's eVTOL which is projected to enter service in 2026.

Wind tunnel testing is an important engineering tool used in the development of an aircraft. The testing allows engineers to monitor the flow of air over and around the vehicle and each of its individual parts. It is also used to measure the aerodynamic forces and moments acting on the vehicle, allowing the team to evaluate the vehicle's lift, efficiency, flying qualities and performance.

The main objective of the test was to investigate and validate how components including fuselage, rotors, wing, tail and

other surfaces would perform in flight. Wind tunnel testing provides a unique view of aerodynamic behavior of complex geometry and provides a higher level of validation of design characteristics. The tests are part of an effort to acquire experimental data to validate production solutions, development tools and models which also includes other test articles such as fixed and moving rigs, flying vehicles and other wind tunnel tests.

"The completion of wind tunnel testing is an important engineering milestone as we continue the development of our eVTOL," said Luiz Valentini, chief technology officer at Eve Air Mobility. "The information we obtained during this phase of development has helped us further refine the technical solutions of our eVTOL before committing to production tooling and conforming prototypes. Our goal is to design, produce

and certify an aerodynamic and efficient eVTOL that will be used for a variety of urban air mobility missions."

Eve's engineering team will use the data gathered through wind tunnel testing to continue to develop the eVTOL's control laws leading to optimal performance and passenger comfort.

Eve's eVTOL is 100% electric and has a range of 60 miles (100 kilometers) allowing it to complete a variety of urban air mobility missions. Its human-centered design ensures the safety, accessibility and comfort of passengers, the pilot and the community by minimizing noise. The aircraft features a lift + cruise configuration with dedicated rotors for vertical flight and fixed wings to fly on cruise, with no components required to change position during flight. It will be piloted at launch, but ready for autonomous operations in the future.

Archer Rolls Out 1st Midnight Aircraft; Prepares for Flight Test



Archer Aviation Inc, a leader in electric vertical takeoff and landing (eVTOL) aircraft announced it has now completed the final assembly of its first Midnight aircraft. With final assembly and initial testing complete, last week the aircraft was shipped from Archer's Palo Alto facility to its flight test facility in Salinas, California and reassembled. Archer will now take this aircraft through a series of ground tests leading up to its planned first flight this summer. The Midnight aircraft has recently garnered significant attention from the U.S. Department of Defense given its payload capabilities.

This Midnight aircraft will enable Archer to perform critical "company testing" to accelerate and reduce risk on its certification program with the Federal Aviation Administration ("FAA") in advance of "for credit" certification testing that the company plans to begin early next year with piloted Midnight aircraft. Our strategy with

this aircraft is to allow Archer to fly many of the same test points that will be needed during piloted "for credit" flight testing in order to further validate the aircraft before the FAA witnesses and participates in the testing - a customary practice in many aircraft certification programs.

Component manufacturing is already underway for Archer's conforming Midnight aircraft. Archer is targeting the completion of final assembly of its initial conforming Midnight aircraft in Q4 2023 and to begin piloted flight test operations in early 2024.

"Today we announced our exciting progress that the final assembly of our first Midnight aircraft is now complete and it is preparing for its flight test program," said Adam Goldstein, Archer's Founder and CEO. "This aircraft will accelerate and reduce risk on our certification program paving the way for our team to focus on building and conducting piloted operations with conforming aircraft to support the

goal of entering into service in 2025."

Archer's industry-leading team, alongside its key strategic partners, Stellantis and United Airlines, continues to advance its aircraft development and commercial operations with impressive speed and efficiency. The company has also established a significant lead over industry peers on the manufacturing and commercial operations fronts with the build out of its high-volume manufacturing facility in Covington, Georgia underway and announced key strategic electric air taxi routes in New York and Chicago.

With a range of up to 100 miles, Archer's Midnight aircraft is designed to perform rapid back-to-back flights with minimal charge time in between. Archer's goal is to transform inter-city travel, replacing 60-90 minute commutes by car that can take over an hour in traffic with ~10-20 minute electric air taxi flights that are safe, sustainable, low noise and cost competitive with ground transportation.

Lilium Jet Enters Powered Test Campaign at Europe's Largest Wind Tunnel Facility



Lilium N.V, developer of the first all-electric vertical take-off and landing jet, today announced the start of wind tunnel testing on a complete 1 to 2.5 scale (40% size) Lilium Jet model, including working engines and flap actuators, at the German-Dutch Wind Tunnels (DNW) facility in Marknesse, Netherlands.

This latest campaign follows Lilium's previous successful wind tunnel testing of aircraft sections in 2021 and 2022 and represents a major milestone in the development of the type-conforming aircraft. Having started in early May, the testing will enable Lilium to obtain a comprehensive aerodynamic dataset to validate its flight physics and performance predictions. The dataset will cover the complete aircraft flight envelope from hover to cruise.

The scale model, one of the most advanced ever to be tested in a wind tunnel, was built according to the latest Lilium Jet design by TGR-E, a provider of high-end manufacturing solutions, supported by aerospace design specialists IBK-Innovation. The large size and low scaling factor chosen for the model allow test data to be generated that is representative of the full-scale aircraft in all phases of flight.

The scale of the model was also made possible by the dimensions of the DNW facility, which is the largest wind tunnel in Europe, measuring 9.5m (31ft) in width. Each flap is remotely actuated and equipped with electric ducted fans built to scale by aerospace propulsion engineers Schuebeler Technologies.

DNW has played an important role in the development of the aviation sector

since its establishment in 1976 by the German Aerospace Center DLR and the Dutch National Aerospace Laboratory NLR. DNW's wind tunnels have been used in the development of all Airbus aircraft, from the A300 to the A380 and A400M, as well as the Embraer E-jet family and numerous helicopters.

Alastair McIntosh, Chief Technology Officer, Lilium said "This is an important step in our aircraft program and it is very exciting to see this large-scale Lilium Jet model with working engines and wing flaps. We've been enormously impressed by the cooperation with DNW so far and the support provided by TGR-E and IBK. We look forward to generating vast amounts of aerodynamics data on the aircraft and building further confidence in our design tools as we prepare for the start of final assembly later this year."

Lufthansa Cargo strengthens eCommerce business at Frankfurt Airport

At transport logistic 2023 in Munich, Lufthansa Cargo AG presented its ambitions for Frankfurt Airport.

Frankfurt is to become one of the world's most important e-commerce hubs in the future. Together with its subsidiaries - logistics service provider heyworld and customs broker CB Customs Broker - Lufthansa Cargo is actively driving forward the expansion of the eCommerce business at Frankfurt Airport.

"We clearly experience and see eCommerce as a growth market," said Ashwin Bhat, CEO of Lufthansa Cargo. "A decisive success factor for online trade is the resilience and speed of the supply chain. We want to make Frankfurt a leader in this segment by offering an integrated, holistic solutions for shipping, customs clearance and the further transport of eCommerce shipments." In addition to expanding its European medium-haul network and adding two more A321 freighters to its capacity, Lufthansa Cargo via its subsidiaries and partners is also focusing



on new software solutions and expanding the capacity of its eCommerce hub in Cargo City Nord.

"Our eCommerce ahub at Frankfurt Airport enables us to meet growing customer needs for fast deliveries," explains Boris Hueske, Managing Director of heyworld. "As a logistics partner, we complement Lufthansa Cargo's offering with innovative software and forwarding solutions that significantly accelerate the clearance and onward transport of eCommerce shipments."

"Our new software solution is a real driver for online trade at the Frankfurt location. With this solution, eCommerce shipments can be cleared much more easily and thus processed faster overall," says Uwe Glunz, Managing Director of CB Customs Broker. "Via API interfaces, the solution can be individually adapted and docked onto customers' existing logistics management systems. This simplifies the exchange of data and documents required for customs clearance and speeds up the entire process."

JAL to introduce first Freighter in 13 years under new business model

JAL has decided to introduce three Boeing 767-300ER Freighter (dedicated cargo aircraft). This will be the first time in 13 years that JAL will operate its own Freighter, and operations will begin sequentially from the end of fiscal year 2023.

JAL has been securing revenues reliably and efficiently in the air cargo business, where demand fluctuates widely, through flexible business operations by using cargo space on passenger flights and chartering other companies' freighters in response to demand. However, with plans for further growth in the cargo and mail business, the company decided to operate its own freighters.

With the introduction of the Freighter, a new business model will be established to ensure stable and growing demand. In addition, they will strengthen our air transportation



capabilities to meet the logistics needs arising from the "2024 issue*" and contribute to solving social issues based on logistics.

To capture domestic and international e-commerce, parcel delivery, and other high growth cargo, they will build alliances with logistics partners and operate routes that ensure stable demand. In addition, they will ensure that domestic air transportation plays a growing role in response to the "2024 issue" and limit business risks caused by fluctuations

in demand and market conditions.

From fiscal 2023, they will begin operating international flights mainly to East Asia, and in the future operate domestic flights to improve aircraft utilization while maximizing the cargo loading ratio. Furthermore, they will respond to customers' needs by flexibly offering charter and non-scheduled flights.

JAL will continue to contribute to the sustainable development of society through further growth of the cargo and mail business.

Etihad Cargo partners with Rotate to provide digital solution to boost customer service



Etihad Cargo, the cargo and logistics arm of Etihad Airways, has partnered with Rotate to co-develop a sales optimisation tool that will identify sales initiatives to enable the carrier's global commercial teams and sales representatives to add value to customer relationships. The first-of-its-kind tool—Sales Cockpit—will analyse data and, using sophisticated custom-built algorithms, will automatically generate recommendations on how Etihad Cargo can strengthen customer relationships, including an overview of current business and future opportunities.

The development of Sales Cockpit is the latest step taken by Etihad Cargo in its digitalisation journey, which aims to optimise the customer experience. The carrier is collaborating with Rotate, a Netherlands-based data-driven strategy consultancy with proven cargo expertise, to improve customer service through

the enhanced use of data and machine learning. Etihad Cargo's customers will benefit from the carrier's representatives gaining a more in-depth understanding of their products, routes and requirements.

Martin Drew, Senior Vice President – Global Sales & Cargo, said, "Digitalisation is already revolutionising the air cargo sector. Etihad Cargo will use Sales Cockpit to further improve customer service and strengthen partnerships, enabling more meaningful interactions with customers and a more tailored approach to meeting customer requirements. Sales Cockpit will effectively put all the information Etihad Cargo's sales representatives would need to develop stronger customer partnerships in the palms of their hands, providing actionable, algorithm-generated suggestions and initiatives based on customer-focused data. This depth of understanding into the carrier's customers is critical to achieving Etihad Cargo's

vision of being the air cargo partner of choice."

Ryan Keyrouse, Managing Director at Rotate, said, "Partnering with Etihad Cargo to build the Sales Cockpit will give us unique access to an innovative team to validate the solution and maximise adoption. We are working as one team to unlock the full potential of digitalisation and enable Etihad's sales teams to have more engaging discussions with their customers."

With the launch of Sales Cockpit, Etihad Cargo will further professionalise customer interactions via the smart adoption of technology. Etihad Cargo and Rotate have commenced development of Sales Cockpit, which is expected to launch within six months. Following the trials and launch, Sales Cockpit will be available to purchase by other cargo carriers, enabling the wider cargo community to benefit from the sales optimisation tool.

EMIRATES SKYCARGO TO DOUBLE ITS CAPACITY IN NEXT DECADE



Emirates SkyCargo has added 2 Boeing 747-400Fs to its freighter fleet, showing its strong confidence in the global cargo market in a current environment of volatility. The cargo division of Emirates, the world's largest international airline, is expecting 15 more freighters to join its fleet from announced orders and its freighter conversion program, plus a boost in belly-hold capacity from new passenger aircraft deliveries starting with Airbus A350s in late summer 2024, followed by 777-Xs the year after.

Over the next decade, Emirates SkyCargo expects to double its existing capacity, add over 20 new destinations to its freighter network, and offer even more flexibility and services to its customers with a fleet mix of over 300 wide-body aircraft comprising: 777s, 777-Fs, 747-Fs, A350s, and A380s.

Nabil Sultan, Divisional Senior Vice President, Emirates SkyCargo said: "While the current market volatility may cause others to hesitate, Emirates

SkyCargo is pushing full steam ahead with our plans. The medium to long term projections for global air cargo show an upward trajectory of between 3-5%. Combine that Dubai's strategy to double its foreign trade where multi-modal logistics will play a big role, and the economic activity happening in markets around the Gulf, West Asia, and Africa, and the opportunity for Emirates SkyCargo is clear.

"The 2 new 747-Fs which we have leased will give us immediate capacity, while we wait for delivery of 5 new 777Fs in 2024 and 2025, and 10 777-300ERs to roll out of our conversion program over the next 5 years. We believe even these additional planes will not be sufficient. By then, we'll have the MRO set-up to quickly and efficiently scale-up our freighter conversion program if we needed to."

Secured on a long-term wet-lease basis, the 2 Boeing 747-Fs complement Emirates SkyCargo's existing fleet of 11 Boeing 777 freighters, and are currently being deployed to Chicago three times

weekly, and to Hong Kong nine times weekly.

He added: "The new aircraft mean we can expand our freighter network and amplify the connectivity with the main Emirates network. The new fleet mix also gives us more flexibility to serve our different customers even better. Emirates SkyCargo is also investing to develop new products, and to speed up digitisation and technology innovation. It is our ambition to lead the market in delivering specialist solutions that are fast, reliable, flexible, and efficient. More exciting developments to come. Stay tuned."

Last week, Emirates SkyCargo launched a brand-new creative advertising campaign, showcasing how 'The World Works Better with Emirates SkyCargo'. Through every-day scenarios, the advert demonstrates how essential its logistics business is to connect people and products all around the world, whether that is through life-saving healthcare, fresh fruit, flowers, pets, or valuables.

Silk Way West Airlines awarded IATA CEIV Lithium Batteries Certification

Silk Way West Airlines, the leading cargo airline in the Caspian and Central Asian region, announces that it has been recognized by the International Air Transport Association (IATA) as a CEIV Lithium Batteries Certified company.

Silk Way West Airlines is committed to staying at the forefront of industry regulations and implementing all necessary measures to safeguard its operations. The CEIV Lithium Batteries Certification further enhances the airline's capabilities and reinforces the confidence of its customers, stakeholders and industry partners. This certification recognizes that Silk Way West Airlines has implemented robust processes and best practices to mitigate relevant risks and comply with stringent requirements.

The CEIV Lithium Batteries Certification is a global standard developed by IATA to ensure the safe and secure handling of lithium batteries throughout the supply chain, and to achieve standardization and uniformity in the



scope, depth, and quality of the assessments conducted.

"Our team have successfully passed all stages of certification and today we can proudly say that IATA recognizes Silk Way West Airlines' lithium battery handling and transport program as applied," said Darko Vucic, Vice President, Corporate Quality Assurance & Quality Control, QMS of Silk Way West Airlines. "We upgraded our knowledge

of IATA's DGR manual implementing the latest standards and best practices related to the safe transport and handling of lithium batteries with further improvement of our safety performance by developing safety risk assessments specific to lithium batteries. The benefit for us, besides procedural improvements regarding the transport of lithium batteries, is to ensure that we continue to maintain the highest applicable".

WFS opens air cargo terminal in India's Bengaluru Airport

Worldwide Flight Services ("WFS"), a Member of the SATS Group, has opened its air cargo terminal and cold chain facility at Kempegowda International Airport, Bengaluru ("BLR Airport") in India. WFS was awarded the 15-year licence to operate the international cargo terminal and cold chain facility in June 2022 by way of a partnership with Bengaluru airport operator Bengaluru International Airport Limited ("BIAL").

WFS will be responsible for the development, operation, management, and maintenance of the international cargo terminal and is also the exclusive operator of the dedicated cold chain facility at BLR airport. Plans are underway to double the terminal's annual throughput to more than 250,000MT. WFS and BIAL will expand the capacity of the airport's cold chain facility to 80,000MT and 150,000MT per annum over



two phases.

John Batten, CEO of Europe, Middle East, Africa & Asia (EMEAA), WFS, said, "WFS has a wealth of experience creating and operating specialist pharma hubs at major airports across our network in Europe, North America and Asia. India is the sixth-largest global economy and the single-largest provider of generic drugs globally. We are confident

that we can add value to the Indian air cargo industry by introducing world-class practices, safety and security standards, sustainable practices and operational excellence to drive productivity improvements and achieve greater efficiency to enhance the Government of India's National Air Cargo Policy and achieve related ambitions."

Bengaluru joins the combined SATS and WFS global network, which provides air cargo logistics, ground handling and technical services in over 200 locations across more than 20 countries. SATS Group, which recently acquired WFS, operates the air cargo terminal in Mumbai. WFS's opening of the air cargo terminal and cold chain facility in BLR Airport will provide SATS' and WFS's customers with expanded cargo network connectivity in India to facilitate value-added and end-to-end air cargo services across the globe.

P&WC Launches PW545D Engine to Power New Cessna Citation Ascend

Pratt & Whitney Canada, a business unit of Pratt & Whitney announced that its new PW545D engine will power the Cessna Citation Ascend, the latest addition to Textron Aviation's business jet family. The engine was designed and enhanced for Textron Aviation to deliver improved specific fuel consumption (SFC), thrust and time between overhauls (TBO).

"The PW500 turbfan family has established itself as the engine of choice for light to mid-size business jets thanks to its proven safety, reliability and durability, attractive operating economics and comprehensive maintenance plans," stated Nicholas Kanellias, vice president, General Aviation. "The PW545D is the latest engine in this family. We injected all we've learned from the more than 4,600 PW500 engines produced to-date, which have accumulated over 22 million flying hours. This new engine is even more fuel-efficient, offers greater thrust and an increased TBO of up to 6,000 hours for eligible customers."

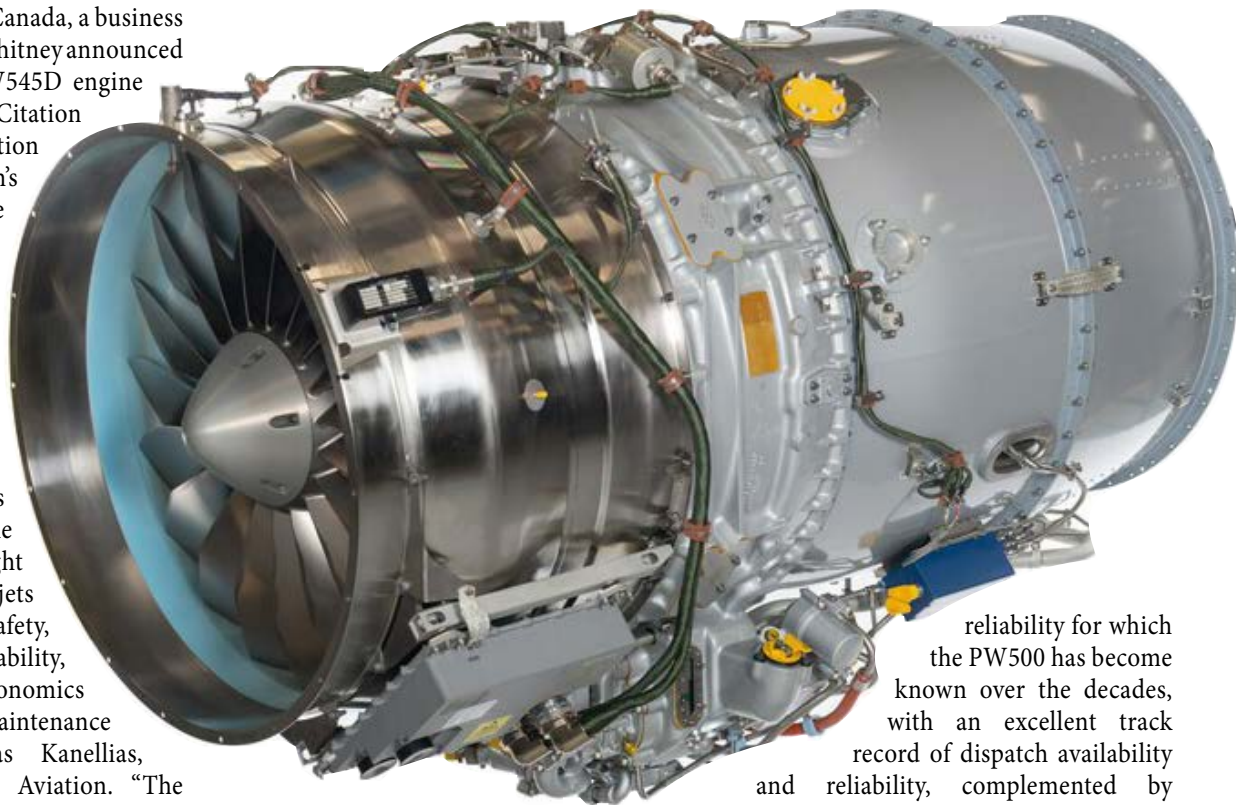
Building on the success of the PW545C, the PW545D incorporates new materials and technology. These include:

A more efficient high-pressure compressor for increased flow,

An enhanced single-stage, high-pressure turbine module, and

An advanced exhaust mixer to reduce fuel consumption and noise.

The new engine is also equipped with Full Authority Digital Engine Control (FADEC) technology, which is included with many PW500 models. This enables the Citation Ascend to integrate new auto-throttle technology that simplifies control,



maximizes efficiency and reduces pilot workload.

The engine supports digitally driven advanced health monitoring and diagnostics, in combination with the FAST™ (Flight, Acquisition, Storage and Transmission) system. With FAST™, the engine's full-flight data is downloaded, stored and analyzed by experts, enabling deep insights and predictive diagnostics to optimize engine performance and maintenance requirements. Customers with FAST™ installed who are enrolled in Pratt & Whitney's Eagle Service™ Plan (ESP™) pay-per-hour maintenance program may take advantage of the 6,000-hour TBO option.

The PW545D engine will help provide Citation Ascend operators with the flexibility to accomplish a variety of missions, including charter services, personal transportation and corporate flights. It also delivers the impressive

reliability for which the PW500 has become known over the decades, with an excellent track record of dispatch availability and reliability, complemented by our comprehensive plans that lock in maintenance costs.

Along with other members of the PW500 family, the PW545D features a compact, accessible design that facilitates installation and on-wing maintenance. It is supported by Pratt & Whitney's industry-leading global service network. This includes over 50 Pratt & Whitney -owned and -designated facilities, more than 100 Field Support Managers on all major continents, a 24/7 Customer First Centre for rapid expert support and the largest pool of Pratt & Whitney Canada rental and exchange engines on the market.

The PW545D can operate on blends of up to 50% SAF with conventional Jet A kerosene. This is part of Pratt & Whitney Canada's ongoing efforts – in collaboration with public and private parties – to lead the way in developing sustainable solutions that will help the industry reach its target of net-zero CO2 emissions by 2050.

Engine Alliance Selects CTS Engines to Provide MRO Engine Services for the GP7200

CTS Engines (CTS) announces they have been selected to provide MRO services for Engine Alliance (EA) on the GP7200 turbofan jet engine. EA is a 50-50 joint venture between Pratt & Whitney and General Electric for the development, production, and service of the GP7200.

The GP7200 is the premier engine for the A380 aircraft as it combines the reliability and ingenuity of the PW4000 and GE90 engines while providing the most fuel-efficient and quietest powerplant for the A380.

“In 2019, Engine Alliance changed its operational focus to aftermarket services and customer support. The partnership with CTS will help us meet our customers’ high expectations,” said Amy Johnston, President of EA. “CTS leadership team provides a unique perspective that comes from years of experience



at airlines, MRO shops, and the OEMs, and we are confident CTS will deliver the results our airline customers require,” stated Johnston.

“We are excited to partner with EA to provide MRO services for the GP7200. This

is a fantastic opportunity for us to learn the best practices from the world’s greatest engine companies while also delivering world-class quality, reliability, and turnaround time,” said Vesa Paukkeri, Chief Executive Officer of CTS.

P&WC Announces MRO Changes in Europe

Pratt & Whitney Canada, a business unit of Pratt & Whitney, and Pratt & Whitney Canada Customer Service Centre Europe GmbH, a joint venture with MTU Maintenance Berlin-Brandenburg announced enhancements to their customer service support network serving the Europe, Middle East and Africa (EMEA) regions.

To support P&WC customers’ MRO capacity for PW500 turbofan engines, MTU will be expanding its capability to include PW545C (Cessna Citation XLS+) and PW535E/E1 (Embraer Phenom 300/300E) engine models at the MTU Maintenance facility in Ludwigsfelde, Germany.

Additionally, the Pratt & Whitney Canada facility in Rzeszow, Poland, will create a new MRO line for the PT6A engine, making this MRO service centre the PT6A MRO Centre of Excellence for EMEA customers. Pratt & Whitney Canada’s Rzeszow operation is a key element of the company’s Global Service



Network providing MRO support for auxiliary power units (APUs) and conducting component repairs.

These changes are in line with P&WC’s growing fleets and customers’ feedback.

They will further improve the company’s reach to customers, create synergies by leveraging the skills and expertise in the region, and improve the overall customer experience.

Rolls-Royce Pearl 10X Engine Development Programme is Running Full Steam Ahead



Rolls-Royce announces the progress of its Pearl 10X engine development programme at the European Business Aviation Convention & Exhibition (EBACE) in Geneva. The programme is advancing at pace and has successfully accumulated more than 1,500 testing hours, both on the Advance 2 demonstrator and the Pearl 10X engine configuration. The team is now preparing for the start of the flight test campaign on Rolls-Royce's dedicated Boeing 747 flying testbed in Tucson, Arizona, USA, which will start later this year.

The Pearl 10X is the newest member of the state-of-the-art Pearl engine family and the first Rolls-Royce engine ever to power a Dassault business jet. The French aircraft manufacturer's selection of the Pearl 10X for its new top range product is another testament to Rolls-Royce's position as the engine manufacturer of choice in business aviation. All the tests completed to date confirm the reliability of the engine and show it will meet the performance requirements to power Dassault's flagship, the Falcon 10X.

So far, the development programme has included the rigorous testing of the new ultra-low emissions ALM combustor, which is compatible with 100% Sustainable Aviation

Fuel (SAF) and the new accessory gearbox, which allows for higher additional power extraction. The engine, which surpassed its target thrust levels on the very first test run, will be the most powerful business aviation engine in the whole Rolls-Royce portfolio. The first run of the full powerplant, including its bespoke Spirit nacelle, engine build up (EBU) and mount system, was conducted earlier this year.

The Pearl 10X features the Advance2 engine core, the most efficient core available across the business aviation sector, and combines it with a high-performance low-pressure system, resulting in a superior thrust of more than 18,000lbf. Compared to the last generation of Rolls-Royce business aviation engines, the Pearl 10X offers a 5% higher efficiency, while delivering outstanding low noise and emissions performance. The result is an engine that offers a market-leading combination of power and efficiency. This combination will enable customers and operators to have premium airport accessibility and fly ultra-long-range connections whilst also being able to travel nearly as fast as the speed of sound.

The engine brings together innovative technologies derived from the Rolls-Royce

Advance2 demonstrator programme and proven Pearl family features to deliver world-class environmental performance. This includes a highly efficient blisked fan; a high pressure compressor with a market-leading pressure ratio and six blisked stages; an ultra-low emissions combustor; a two-stage shroudless high pressure turbine as well as an enhanced four-stage low pressure turbine that is one of the most efficient and compact in the industry. This suite of technologies is housed within a brand new, ultra-slimline nacelle from Spirit AeroSystems.

Dr. Phillip Zeller, SVP Dassault, Rolls-Royce, said: "As a team we are extremely focused on the development of this engine and it makes me proud to see the continuous progress of the programme, achieving milestone after milestone. The combination of highly-efficient power and outstanding environmental performance of the Pearl 10X is in a class of its own and will support Dassault's Falcon 10X in setting new standards in the ultra-long-range corporate jet market.

"We are now looking forward to delivering the first engines for the flight test campaign and I can't wait to see it taking to the skies for the first time."

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IAI has Acquired Greek Defense Company Intracom Defense

IAI signed a deal to acquire INTRACOM DEFENSE (IDE), Greece's leading technology Defense Company. IDE specializes in the production of missile launchers, missile subsystems, land and sea tactical communications, hybrid generation, and more. The company is active in Greece and other NATO countries and has defense collaborations with leading companies in the United States and Europe. IDE as a Greek entity will be integrated into IAI's business activities in Greece and Europe, while providing solutions to the challenges faced by the continent's countries. After the current acquisition, the company's Greek customers will continue to benefit from the company's independence, as well as a larger and more widely deployed range of services for new markets.

IAI conducts a wide range of collaborative activities throughout Europe, supplying advanced and operationally-proven systems for marine, land, air, and space use. Following the acquisition, IAI's customers will benefit from the possibility of local production and maintenance on the European continent and from the wide product portfolio that IAI can supply. This includes the most advanced air defense systems which are in great demand through



the world. Greece will enjoy the advantages of local industry involvement in upcoming Greek projects in worldwide defense-related procurement programs, and in the positioning of the Greek company as a leader in its field.

IAI's CEO, Boaz Levy: "The acquisition of INTRACOM DEFENSE strength IAI's business capabilities in Greece, and in Europe as a whole. The acquisition of IDE will strengthen and widen activities in Greece, and among NATO countries, and help in promoting wide range of solutions that the company can provide. In view of increasing defense needs across Europe, and in response to the ever-increasing demand for air-defense and UAV's systems- in which

IAI is a recognized world-leader. IAI and IDE share a common vision deriving from our uncompromising business desire for the highest-quality solutions, and have thus cooperated on more than one occasion over the last few years."

Chairman of Intracom Holdings, Socratis Kokkalis said: "this deal today reflects the acknowledgment in the excellent capabilities of a special Greek industry - IDE as an internationally recognized company. IDE success is an outcome of 40 years of investment of both capital and human efforts with perseverance and against all odds. We are proud today to take part enhancing the Greek defense industries and overall relations between Greece and Israel."

Raytheon Technologies Develops 'NexGen Optix' Tactical Free-Space Optical Comms

Raytheon Technologies announced the launch of NexGen Optix, a tactical Free-Space Optical Communications system that enables high-speed, secure data transfer in challenging environments.

NexGen Optix, developed by Raytheon Blackbird Technologies, provides greater bandwidths in a form factor that is smaller, weighs less, uses less power and costs less than conventional optical systems and can securely send more data within the same bandwidth over longer distances. The system uses lasers instead of radio frequencies as a means of communication, which makes the signal less susceptible to detection, interference and jamming.

"NexGen Optix represents a significant advancement in secure communication and shared networking technology," said Troy Smith, director of Raytheon Blackbird Technologies.



"We've developed a solution that enables organizations to communicate effectively in challenging environments where traditional communication systems may not be reliable."

The ultra-low size, weight and power-cost (SWaP-C) communications has been optimized for peer and near-peer operational environments and provides rapid, secure communication and connectivity. Offering a tactical advantage to

forces, the system has been tested and approved during U.S. government exercises.

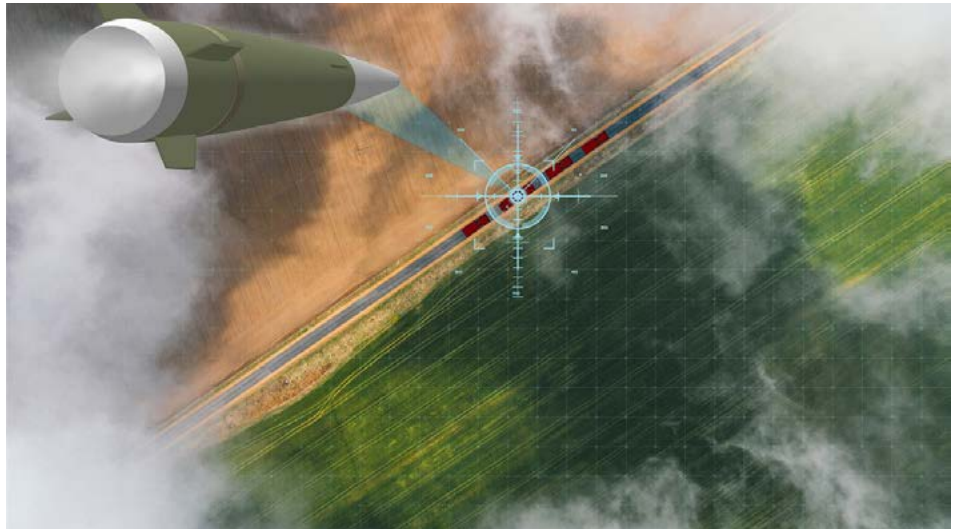
In addition to its high-speed data transfer capabilities, NexGen Optix is lightweight and portable, making it easy to deploy in the field. The system is also designed with rugged components that can withstand harsh environmental conditions, ensuring reliability even in the most extreme situations.

US Army Awards BAE \$72.5M Precision Guided Munitions R&D Contract

U.S. Army Combat Capabilities Development Command Armaments Center (DEVCOM AC) has awarded BAE Systems a three-year contract for continued research and development efforts in the advancement of precision guided munitions (PGM) to support the Army's long-range precision fire modernization efforts.

"We have invested heavily to innovate and develop a highly maneuverable long-range fires capability that will support Soldiers on the battlefield by providing lethality against high value targets," said Brent Butcher, vice president and general manager of Weapon Systems at BAE Systems. "We look forward to partnering with DEVCOM AC to continue to advance precision guided munitions and find the best long-range precision fires solution for the U.S. Army."

For nearly a decade, BAE Systems has been investing in the development



of ultra-long range and hypervelocity munitions. Under this contract, BAE Systems will team with DEVCOM AC to continue to advance the capabilities of precision cannon munitions to defeat fixed and moving targets in GPS degraded or

denied environments at double the range of existing cannon-launched PGMs.

BAE Systems was awarded a \$16 million contract in 2021 to mature and demonstrate the lethality of PGMs against long-range land-based targets.

DRDO & Indian Navy conduct successful maiden test trial of indigenous Air Droppable Container 'ADC-150' from IL-38SD aircraft off Goa coast

Defence Research & Development Organisation (DRDO) and Indian Navy conducted the successful maiden test trial of 'ADC-150' from IL 38SD aircraft off the coast of Goa on April 27, 2023. 'ADC-150' is an indigenously designed and developed Air Droppable Container with 150 kg payload capacity. The trial was conducted to enhance the naval operational logistics capabilities by providing quick response to meet the requirement of critical engineering stores to ships (under distress), which are deployed more than 2,000 kms from the coast. It reduces the requirement of ships to come close to the coast to collect spares and stores.

Three DRDO laboratories - Naval



Science & Technological Laboratory (NSTL), Visakhapatnam; Aerial Delivery Research & Development Establishment (ADRDE), Agra and Aeronautical Development Establishment (ADE), Bengaluru - have been involved in the development of ADC-150 container. The crucial flight clearance certification was

given by Regional Center for Military Airworthiness (RCMA), Kanpur headed by Centre for Military Airworthiness & Certification (CEMILAC), Bengaluru.

Secretary, Department of Defence R&D & Chairman DRDO has congratulated the scientists and the Indian Navy for the successful trial of ADC-150.

QinetiQ to Deliver Unique Banshee Jet 80+ Target System to US Army



QinetiQ is to provide the US Army's Threat Systems Management Office (TSMO) with a uniquely developed version of its Banshee Jet 80+. Known as the MQM-185B, the target will help the US Army train for real-world scenarios by flying the hyper realistic threat targets.

The MQM-185B aerial target combines QinetiQ's innovative technology with the advanced options required by the TSMO to deliver a capability uniquely optimised for the US Army. As a result, the Banshee will be compatible with the TSMO's proprietary Army Ground Aerial Target Control System (AGATCS).

Flown in over 40 countries and used during exercises launched from the HMS Prince of Wales aircraft carrier, the Banshee Jet 80+ provides the opportunity to run accurate drills by emulating cruise missiles and enemy fast jets which may be faced on mission. The MQM-185B has a maximum altitude of 30,000ft and can also perform low level sea skimming and terrain following, delivering a realistic adversary to train against. The use of the drone targets will be key to the US Army and their allies in improving their defence capabilities as the Banshee is able to emulate a wide variety of in-theatre threats.

Ryan Peterson, Customer Account

Manager, QinetiQ Target Systems, said: "Using highly accurate targets such as the Banshee is becoming a necessity for our defence customers. As the threat environment increases in complexity, organisations such as TSMO are seeking technology capable of delivering complex training and evaluation exercises."

"The MQM-185B, combined with QinetiQ's engineering and operational flexibility, enables us to deliver a customised platform that satisfies TSMO requirements and makes its operations more agile and cost effective. We're delighted to be supporting the US Army as it strengthens its training and Test and Evaluation capabilities."

Indra Installs the Naval Version of Lanza 3D Radar on an Indian Navy Front Line Ship

Indra's Lanza 3D radar continues to strengthen itself as one of the most advanced surveillance systems on the market and continues its international expansion. Indra is currently installing its naval version, Lanza-N 3D, on one of the Indian Navy's destroyer ship, beginning the delivery of the 23 radars that it will provide to the Indian Navy over the next decade.

This milestone is part of the contract signed by the company in 2020 with the Indian company TATA Advanced Systems Limited (TASL), within the framework of a technology transfer program. This provides for the delivery by Indra of a total of three complete radars, plus the core elements of its system for another 20 radars, destined for ships, which TASL will complete and integrate locally. To them is added an additional reference radar to support this technology transfer during the additional maintenance period of 12 and a half years.

After designing and producing the first radar at Indra's facilities in Madrid, the system passed the factory acceptance tests (FAT) at CEAR, the Radioelectric Analysis Center of the Institute of Aerospace Technology (INTA) in November, to be subsequently shipped to India, where installation has begun once the ship has become available.

The following two radars are already in production and are expected to pass FAT tests this year.

The Lanza-N radar that is being implemented is based on the one fitted to the ship Juan Carlos I of the Spanish Navy, although the system has been adapted to the regulatory requirements of India, for example, in the environmental field to guarantee its optimum performance even in conditions of high humidity and extreme heat.

In addition, it incorporates the latest technological and operational updates incorporated by Indra to its family of Lanza radars, as well as some improvements, such as greater power for the use of long-range mode or remote monitoring of the pressurization system.



This project confirms the export potential of the Lanza-N radar, a high-tech Spanish solution for surface ships, designed as a long-range, modular, solid-state pulsed tactical radar, with all the equipment associated with the Lanza-N fully integrated for a naval operation. The primary function of radar is the detection of aircraft within the instrumented coverage volume, even in adverse conditions. It also includes the integration of a Secondary Surveillance Radar (IFF/SSR).

The most advanced radar technology Indra's Lanza 3D family radars have not stopped evolving and improving to become one of the most advanced on the market on a global scale. Thus, Indra has also become one of the main manufacturers of radars in the world, applied not only to the Defense sector, but also in the field of mobility and air traffic. The company has one of the largest radar factories in Europe in the Community of Madrid, with more than 7,000 square meters and 200 specialized professionals.

With more than forty years working on the development of these systems, Indra

has exported its radars to the five continents and is the main supplier of NATO. The protection of European airspace, the survival of the Eurofighter and the ships of various navies, and even the protection of orbiting satellites depend on the company's mastery of this technology. It has also developed one of the most powerful radars in Europe and the world, intended for space surveillance, capable of detecting objects in orbit more than 2,000 kilometers from Earth and which is responsible for protecting launches, satellites and the international space station.

In this area, Indra has signed a collaboration agreement with the Indian company, Centum Electronics, to present a joint proposal to the Indian Space Agency (ISRO) to manufacture a radar for observing and tracking objects in space with which to protect the country's space assets. The agreement is aligned with the "Make India" strategy of the country's government, which supports the formation of this type of strategic alliances between local companies and leading companies.

Viasat Next-Gen Ground-to-Space Encryption Solution Achieves NSA Type-1 Certification

KS-252 programmable/multi-functional space crypto with the addition of modern non-proprietary RESTCONF interfaces. This HTTPS-based protocol will provide for easy integration to enable complex satellite operations to now be conducted at the speed of machine learning and artificial intelligence driven algorithms. This allows users to closely control, monitor and aggregate data across large satellite constellations operating in multiple orbits. The KG-255XJ expands family of KG-255X products that have long provided flexible encryption solutions by offering encryption at Layer 2 or Layer 3 network levels, which will enable easy software upgrades to enhance security, and providing a solution for multiple use cases with a single device.

Programmable Scalable Information Assurance Model (PSIAM) cryptographic technology in the KG-255XJ provides the foundational security capabilities to replace multiple legacy ECUs into a modern, multi-functional encryption device.

“The proliferation of satellites in space and



the complex nature at which they operate—at multiple orbits, altitudes and frequencies—can increase an adversary’s ability to attack and take over a satellite communications system,” said, president, Viasat Government Systems. “Our KG-255XJ solution, built in coordination with deep customer insight, provides a single device that protects satellite command and telemetry links while reducing the complexity and costs associated with integrating multiple satellites and space systems. This encryption capability will deliver value for both government and

commercial customers, and

The KG-255XJ is configurable for multiple cryptographic functions and offers new security features to address emerging and expanding threats. Continues to coordinate with military customers and satellite integrators to utilize this software reprogrammable capability to add additional functionality to meet the evolving needs of the space community and bring a holistic approach to securing the entire ground-to-space system versus protecting a single asset or data set.

BOEING AND ST ENGINEERING SIGN P-8 SUSTAINMENT MOU

Boeing signed a Memorandum of Understanding (MoU) with ST Engineering to outline potential areas of collaboration in systems integration, training, local parts distribution, support and sustainment work for the P-8A Poseidon.

Boeing and ST Engineering have identified opportunities to collaborate in a number of areas and will explore these in more detail, including jointly developing a P-8 service center in Singapore with the provision of engineers and aircraft maintenance technicians to support maintenance and engineering services.

The P-8A is a long-range, multi-mission aircraft that delivers unmatched antisubmarine warfare, anti-surface



warfare, intelligence, surveillance and

reconnaissance, and humanitarian assistance and disaster relief capabilities.

The P-8A, a military derivative of the Next-Generation 737-800, combines superior performance and reliability with an advanced mission system that ensures maximum interoperability in the future battle space. With more than 160 aircraft in service, the P-8 has executed more than 600,000 mishap-free flight hours around the globe.

Militaries that operate or have selected the P-8 include the U.S. Navy, the United Kingdom’s Royal Air Force, Royal Australian Air Force, Royal New Zealand Air Force, Indian Navy, Royal Norwegian Air Force, Republic of Korea Navy and German Navy.

Estonia has signed a Contract with IAI to Acquire Long-range Loitering Munitions

The Republic of Estonia has signed an agreement with Israel Aerospace Industries (IAI) to procure advanced long-range loitering munitions, making it the one of the most expensive defense procurement Estonia has ever made. The procurement of long-range loitering munitions aims to strengthen Estonia's defense capability by significantly increasing its indirect fire capabilities. Along with extended range artillery ammunition, anti-ship missiles, and multiple launch rocket systems, Estonia will have various capabilities to influence the adversary from long distances in the near future.

"Long-range loitering munitions are an important addition to the development of Estonia's defense capability. The importance of indirect fire cannot be overestimated, as Russia has caused much of the destruction in Ukraine through indirect fire. The introduction of this new capability allows us to attack the enemy from a longer distance. As a result, indirect fire becomes more layered and flexible, increasing the range of fire, which means that the defense forces can hit the enemy where it hurts," said Defense Minister Hanno Pevkur.

The Estonian Defence Forces' indirect fire capability is provided by various caliber mortars in the composition of maneuver units and self-propelled howitzers in divisional composition. In 2024-2025, multiple rocket launchers and long-range loitering munitions units will also be created within the Defence Forces.

Prior to the procurement of stealth air-launched munitions, a thorough market research was conducted to find the most suitable solution for the defense forces' needs. Estonia's order focused primarily on achieving long-range offensive capabilities. Criteria included precision, munition robustness, and wide-ranging simultaneous offensive capability.

"The market for long-range loitering munitions is currently turbulent. Recent conflicts such as the Nagorno-Karabakh conflict and the ongoing war in Ukraine have demonstrated the high effectiveness of this type of offensive weapon, leading to the development of such systems by several countries, with new players expected to enter the market soon.



The future of this market will certainly involve intense competition, and the coming years will reveal where these systems will further evolve. Currently, we have made orders for long-range weapons which we cannot disclose the exact specifications of, but in the future, we plan to acquire similar weapons with different technical capabilities and for firing at different ranges," said Ramil Lipp, armament category manager of the ECDI.

IAI's President and CEO Mr. Boaz Levi,



said: "Estonia is a strategic partner for IAI. This award reflects the growing trust and relations between Estonia and our company. IAI offers a family of loitering munition missiles – providing a wide range of solutions from the tactical to the strategic level" Mr Levi added, that IAI's loitering munitions are particularly useful when users seek more flexibility and responsiveness in employing firepower to quickly spot the enemy and act decisively based on the information acquired by the weapon itself in real-time. Loitering munitions are suited for naval or land platforms.

Market research for the procurement of long-range loitering munitions began in the spring of 2022 with the mapping of the first companies. The market research included companies from the USA, Turkey, South Korea, Poland, Germany, Israel, the United Kingdom, and Estonia.

The first deliveries are expected to arrive in 2024, with the necessary training provided to the Defence Forces before deployment. The Defence Forces will be ready to use the systems as soon as they arrive.



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