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THE MAGAZINE FOR AEROSPACE PROFESSIONALS IN THE MIDDLE EAST, NORTH AFRICA AND TURKEY

BE MY GUEST...

GRIFFITHS' INVITATION TO JOIN IN DUBAI'S GROWTH JOURNEY

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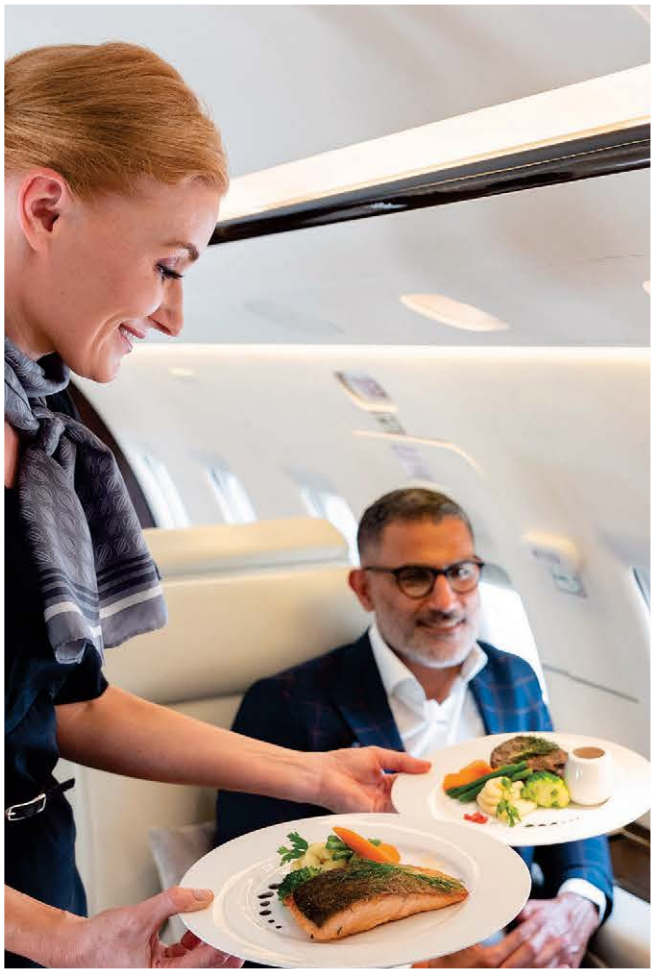
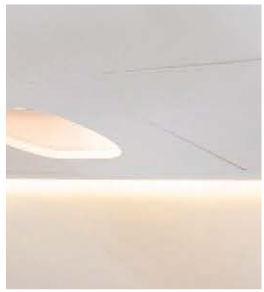
AVIATION WEEK NETWORK





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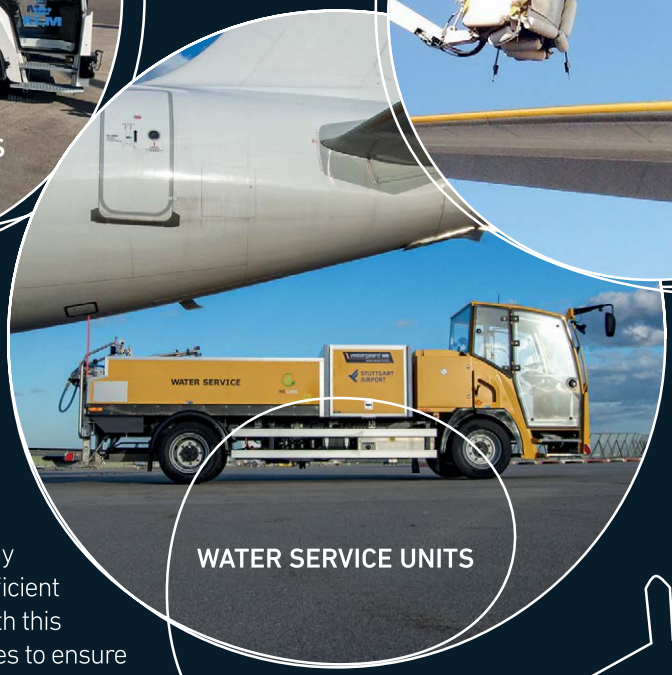

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Paul Griffiths, CEO of Dubai Airports.
IMAGE: DUBAI AIRPORTS

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AVIATION IS A GREAT CAREER FOR WOMEN AND MEN

Dr Eng Suaad Al Shamsi is one of those people you meet who make an immense difference to people's lives and acts as an inspiration and a role model that benefits our industry.

As the first Emirati female aviation engineer, it was not surprising at the MRO Middle East & Aircraft Interiors Middle East 2025 event in Dubai that women across the region came to thank her and tell their own stories.

As a leading light in the Women in Aviation movement, Al Shamsi knows how vital it is to be seen.

I had the great pleasure of interviewing her twice in five days, first at HFW's Middle East Aviation conference and then again at MRO Middle East.

I was astonished to discover there are fewer women engineers in aviation that there are women pilots.

That is a disgrace.

❑❑❑❑❑

Our industry is struggling with staff shortages. I find it frustrating having enjoyed similar conversations with the Ninety-Nines Women's Pilots Association in the Middle East and Africa, that there still appears to be a reluctance for females to believe that aviation can be an incredible career.

There are fewer than five per cent of aviation engineers around the world – and not that much higher percentage are pilots.

Dr Suaad has two young sons, a husband and a family home. She has also been involved at a senior level in the region's aviation scene.

Her aviation journey began with hands-on training at global leaders such as Messier-Bugatti, Honeywell, Kunz, Airbus, and Boeing.

She then broke barriers by joining Emirates Airline as the first Emirati female aircraft engineer, working in maintenance for over 10 years before transitioning into leadership roles.

❑❑❑❑❑

She is currently senior technical project manager at Etihad Airways, where she leads aviation projects exceeding $100 million in value.

She is also the CEO of L2L (Learn to Live) Consultancy, a founding member of Women in Aviation – Middle East Chapter and serves as the UAE ambassador for the International Union for Technical Education.

Al Shamsi has a great story to tell and has used her communication gifts at numerous events and workshops to demonstrate how women can advance in this industry.

She has become a great role model to help our industry recognise the value and potential for girls to play the part they should in keeping aircraft in the air.

We need women to recognise aviation CAN be a career that you can rise to the top and do a job you love.

Do not be afraid to dream.

Alan Peaford, Editor-in-Chief


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It's a Flyadeal: Saleh Eid (left), Vice President of Fleet Management and Agreements at Saudia Group and Benoît de Saint-Exupéry, EVP Sales Commercial Aircraft at Airbus put pen to paper at Saudia's order ceremony for 10 A330-900s (main picture) for its subsidiary Flyadeal. IMAGES: AIRBUS

Flyadeal banks on A330-900 to tap Saudi long-haul, low-cost market

Flyadeal has revealed its long-awaited widebody deal with a firm order for 10 Airbus A330-900neos plus an additional 10 purchase rights.

The Saudi Arabian low-cost carrier, which was launched by the kingdom's flag carrier Saudia in 2017, is scheduled to take delivery of its first A330-900neo in July 2027 with all 10 arriving within three years, said Flyadeal CEO Steven Greenway.

"This is a real endorsement from the board, the Saudia Group and the country," Flyadeal CEO Steven Greenway told *Arabian Aerospace*, speaking in advance of the A330neo order ceremony in Toulouse.

HE Engr Ibrahim Al-Omar, Director General of Saudia Group, stated: "This deal marks a pivotal milestone in our ambitious strategy to modernise and expand our fleet. It builds on last year's historic deal with Airbus for 105 aircraft. This step aligns with our national strategies under Saudi Vision 2030, which aims to connect 250 destinations and facilitate the travel of over 330 million travellers and 150 million tourists by 2030."

The interior lay-out is being finalised but will be configured with 420-440 seats in a two-class cabin with 14-21 seats in a premium economy cabin.

The Jeddah-based airline began services with a domestic network and began branching out into international services in 2021.

Greenway acknowledged that Flyadeal's move into widebody operations is "pushing the envelope with the LCC model".

"The difference with the Saudi market is you have a huge amount of labour and pilgrimage traffic coming into the kingdom that a lot of other countries don't enjoy. It is high volume, low yield traffic, and we know that if we get our unit costs right, we can have a piece of that pie."

Flyadeal has been tapping into this market for the past three years using wet-leased Airbus A330s and Boeing 777s conducting seasonal charter services bringing travellers into Saudi Arabia for Hajj and Umrah pilgrimages.

The unique traffic patterns of the Saudi market plus the airline's familiarity with widebody operations means Flyadeal has already partly mitigated the risks of going for the A330neo fleet, believed Greenway.

The airline's fleet studies looked at the options of taking used 777s from parent Saudia and refurbishing them and ordering new 787s from Boeing in addition to the A330neo.

The fleet commonality and earlier availability of the A330neo sealed the deal and the type will operate on a network from Saudi Arabia to Europe, South and Southeast Asia without payload restrictions.

The A330neo is exclusively powered by the latest generation Rolls-Royce Trent 7000 engines and can fly 7,200 nm / 13,300 km non-stop.

By 2029, Flyadeal will be operating a fleet of 98 aircraft including its new A330neos along with 88 A320neos and A321neos. Its first of 39 A321neos will begin arriving in 2026, said Greenway.

Mission accomplished

The Emirates Mission to the Asteroid Belt (EMA) completed reviewing the critical design phase of the mission in March.

Salem Butti Salem Al Qubaisi, director general of the UAE Space Agency, said: "The mission represents an advanced step in our journey of scientific innovation. It contributes to bolstering our position in deep space exploration, and opens promising horizons in the fields of technology, education, and economy for future generations.

Gulf to Gatwick

Gulf Air celebrated the inaugural flight of its new direct route from Bahrain International Airport to London Gatwick Airport in March.

The launch adds London Gatwick as Gulf Air's second destination in London, complementing its longstanding operations to London Heathrow Airport, which have been serving passengers for more than 55 years since 1970.

Riyadh in MI world

Riyadh Air will be the first airline to launch Panasonic Avionics' fully-integrated in-flight engagement (IFE) interactive design and publishing tool – Modular Interactive (MI).

Anton Vidgen, vice president, guest experience at Riyadh Air, said: "As the world's first digitally-native airline set to fly in 2025, we aim to integrate modern technology and traditional Saudi hospitality with sustainability at the core."

Inside job

Jazeera Airways plans to streamline operations by in-sourcing ground handling services at Kuwait International Airport.

The airline said the move is a key component of the airline's ongoing transformation journey to optimise operational efficiency, enhance customer experience, and drive lowest unit cost.

The airline currently contributes to 31 per cent of passenger traffic in Kuwait.

Emirates delivers Courier Express

Emirates has launched Emirates Courier Express, an end-to-end delivery solution that is set to redefine the express delivery experience. To ensure Emirates Courier Express addressed industry-wide challenges, Emirates worked with various global customers to pilot and finesse the product, with the goal to make it as fast, reliable and flexible as possible, before launching to market.

Badr Abbas, divisional senior vice president, Emirates SkyCargo said: "Emirates Courier Express is an evolution in how we move goods across the globe, at speed and at scale.

"This innovative solution does not just meet the Emirates' gold standard of reliability and excellence but sets a new benchmark for what's possible. This is only the beginning of our vision to continuously innovate and lead the charge in the express delivery sector."

Joramco's MRO alliance

Joramco, the Amman-based MRO facility, has signed a framework agreement with TIM Aerospace, an independent start-up MRO company at DWC, for a joint MRO cooperation.

Under the agreement, the two MROs will engage in joint commercial and operational aspects, allowing an extended market reach to facilitate greater capacity for airlines and operators.

Goode looking

Riyadh Air has launched its first cabin interior, designed by transport design consultancy PriestmanGoode.

PriestmanGoode was selected by Riyadh Air back in 2022 to design the interiors of its inaugural Boeing B787-9 fleet.

Tony Douglas, Riyadh Air CEO, said: "The design, layout, and features of our new cabins are carefully crafted to ensure flights are as comfortable and enjoyable as possible.

"From the ergonomic and luxurious fabrics in the seats to the high-end technology used in the entertainment systems, every facet of the cabins has been chosen to deliver relaxing luxury."

Digital deal

Matarat Holding has signed an MoU with SITA to accelerate the digital transformation of airports across the Kingdom of Saudi Arabia.

The agreement will focus on deploying smart, scalable technologies that enhance passenger experience, streamline operations and increase airport efficiency as Saudi Arabia pushes forward with its aviation modernisation plans.

One of the first Apache attack helicopters arrives as Salé for the RMAF. IMAGE: BOEING

First Apache batch for Morocco arrives in country

The first batch of six Boeing AH-64E Apache attack helicopters for the Royal Moroccan Air Force (RMAF) has been handed over at the 1st Air Base in Salé as part of the North African country's defence modernisation strategy.

The $440 million order for 24 of the type was made in June 2020 along with an option to acquire 12 more.

The deal also includes 551 Hellfire air-to-surface missiles, 200 AIM-92H Stinger air-to-air missiles, and 558 advanced precision kill weapon system precision-guided rocket kits.

GE Aviation is supplying 48 T700-701D turboshaft engines and spare parts for the new fleet.

Longbow LLC – the joint venture between Lockheed Martin and Northrop Grumman, is supplying AN/APG-78 Longbow radars.

Green light for Qatar and Virgin Australia partnership

Qatar Airways Group and Virgin Australia have received final go-ahead from the Australian Competition and Consumer Commission (ACCC) for the airlines' integrated alliance.

This final determination officially signals the green light for Virgin Australia's new 28 weekly flights between Australia and Doha, operated under a wet-lease with Qatar Airways, to proceed.

The ACCC's authorisation of Qatar Airways' partnership with Virgin Australia gives the Australian carrier access to the scale and expertise of a world-leading global airline and facilitates its re-entry into long-haul international flying. This will drive increased competition in the market while delivering greater choice and value for Australian passengers.

Utilising aircraft wet-leased from Qatar Airways, Virgin Australia is set to commence long-haul flights from Sydney, Brisbane and Perth to Doha from June 2025, followed by Melbourne to Doha in December 2025.

Round trip...

Emirates has joined the Aviation Circularity Consortium (ACC), along with SL Metals, with the aim to unlock the circular economy for aviation.

Emirates has embedded recycling and circular solutions within its operations as part of its sustainability strategy.

From cabin interior upcycling and incorporating more sustainable materials in its products to inflight initiatives and waste reduction programmes, the airline continues to explore innovative ways to reduce its environmental footprint. By joining the ACC, Emirates will contribute to advancing circular aviation innovations, further strengthening the consortium's collaborative momentum.

Magnificent 777s

Emirates has introduced Boeing 777s with upgraded cabins to eight more destinations on its route network.

The airline aims to serve 44 cities with its fleet of refurbished Boeing 777 and Airbus A380 aircraft by September 2025.

Emirates has enhanced its Boeing 777 services with an elevated onboard experience across the following destinations: Lisbon, Dublin, Hong Kong, the Maldives, Kolkata, Colombo, Johannesburg and Cape Town.

Additionally, London Stansted will receive its second daily service with refreshed Boeing 777 interiors from June 1.

Fire squad

Columbia Helicopters has renewed its aerial firefighting contract with CMC Savunma Sanayi (CMC) in Turkey.

Under the new contract, Columbia will deploy four Columbia 234 multi-mission Chinook helicopters, supported by experienced flight crews and dedicated maintenance personnel for

Hybrid heliport takes a big step forward

The UAE General Civil Aviation Authority (GCAA) has granted a Design Acceptance for the country's first hybrid Heliport.

Developed in strategic collaboration with AD Ports Group, Falcon Aviation Services and Archer Aviation, Abu Dhabi Cruise Terminal will be located at Zayed Port, as part of the visionary Abu Dhabi Air Taxi project.

Saif Mohammed Al Suwaidi, director general of the GCAA, said: "Through our close collaboration with Archer, AD Ports Group, and Falcon Aviation Services, we are enabling a future where sustainable, high-tech air transport becomes a core part of our urban landscape.

"This approval represents a new era for civil aviation, driven by partnership and vision."

The hybrid Heliport will serve as a key launch point for the Abu Dhabi Air Taxi service, planned for rollout by 2026, connecting key locations across the city with quiet and efficient air mobility solutions.

■ Vertiport brings air taxi service closer - Page 20

the 2025 fire season. Each aircraft is equipped with a 2,600-gallon Bambi bucket, providing precise water and retardant delivery to high-risk areas.

President and CEO of CMC, Cem Colak, said: "After four years of successful firefighting operations, their 234 multi-mission Chinook helicopters have become a key asset in our support to the Turkish General Directorate of Forestry."

Block lease

AviLease has signed strategic agreements with Turkish Airlines for long-term leases of eight Airbus A320neo aircraft.

Two of the aircraft have already been delivered, with the remaining six scheduled for delivery throughout 2025.

Suite success

GE Aerospace has entered a five-year agreement with Royal Jordanian (RJ) to support the airline's comprehensive suite of software as a service (SaaS) solutions.

RJ's CEO, Samer Majali, said: "This agreement marks a significant step forward in our commitment to enhancing operational efficiency, safety, and customer satisfaction. By integrating GE Aerospace's advanced software into our operations, we are poised to achieve new levels of performance and reliability."

The agreement is GE Aerospace's first SaaS collaboration with the airline.

Hamad milestone

Hamad International Airport (DOH) officially unveiled its highly-anticipated concourses D and E in March, marking a major milestone in its expansion and increasing its capacity to more than 65 million passengers annually.

The expansion project, which began in 2018, marks the culmination of the airport's ambitious development plan. This represents the final phase of a transformational journey initiated in 2022 with the unveiling of the Orchard, a 6,000-sqm indoor tropical garden.

DAE's 17 aircraft

Dubai Aerospace Enterprise (DAE) has signed agreements with multiple counterparties to acquire 17 aircraft for an aggregate consideration of approximately US$1.0 bn.

The portfolio is comprised of 100 per cent next-generation aircraft, of which 89 per cent are narrow bodies. Eighty per cent of the aircraft are manufactured by Airbus and 20 per cent are manufactured by Boeing.

These 17 aircraft are on lease to 11 airlines in 10 countries. Upon completion, these aircraft are expected to reduce DAE's weighted average passenger fleet age to 6.9 years and increase DAE's weighted average passenger fleet lease term remaining to 6.6 years.

GACA grants Riyadh Air operational licence

The General Authority of Civil Aviation (GACA) has officially granted an air operator's certificate (AOC) to Riyadh Air, authorising the airline to start commercial flight operations.

The issuance of the AOC confirms Riyadh Air's full compliance with Saudi Arabia's aviation regulations, international standards, and flight safety requirements under the Chicago Convention on International Civil Aviation.

Riyadh Air CEO Tony Douglas added: "Obtaining the air operator certificate is an important milestone in the company's journey. It is the result of the efforts of many employees at Riyadh Air.

"Today, we can proudly say that Riyadh Air is now an airline with an operational licence to transport our travelling guests, and we are ready to begin operations later in 2025."

Riyadh Air is projected to fly to more than 100 destinations by 2030, supported by an order of over 132 aircraft.

How the multi-airport DWC will look.
IMAGE: DUBAI AIRPORTS

THE

Paul Griffiths – Driven by a single KPI to never constrain growth.
IMAGE: DUBAI AIRPORTS

Paul Griffiths, the CEO of Dubai Airports Company since 2007, was given one single KPI on his first day in the office, by his boss, chairman of the Emirates Group and Dubai Airports, and president of Dubai Civil Aviation, HH Sheikh Ahmed bin Saeed Al Maktoum: 'Never constrain the growth of aviation in Dubai.'

For Griffiths, it was a mantra that has been at the heart of the decision making that has seen the small emirate's airport become the busiest international airport in the world for the past decade, according to Airports Council International (ACI), and thrive through global economic downturns and disease.

Last year, the airport, DXB, set a new benchmark in global aviation, welcoming 92.3 million 'guests' – the highest annual traffic ever recorded in its history. This milestone surpasses the previous record of 89.1 million achieved in 2018.

The term 'guests' is part of the approach that Griffiths brought to the party when he came to Dubai from a stint at London Gatwick and previously leading the commercial activities of Sir Richard Branson's Virgin Atlantic airline. Virgin was very much an "alternative" approach to the airline industry in the 1990s and it honed his approach to customer service as he switched to the airport sector.

"Fundamentally, I differ from most of my colleagues in the airport industry, because I don't think I'm an infrastructure manager," he said." "I don't think that airlines are the suppliers of my

ONLY WAY IS UP

Dubai's ambition to remain the world's number one international airport is backed by the emirate's leadership and a single-minded management.

Alan Peaford *hears how Dubai Airport Company's CEO intends to see it happen.*

customers. I think we are in the hospitality business.

"We're in the business of making sure that our role as a critical part of the aviation supply chain, is made as efficient and warm and friendly as possible, so we've increased the throughput through DXB to accommodate something like 117 million, which during the course of the next few years, I think we will probably exceed.

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"We think we'll get to 100 million by 2027 – probably at the latest. So definitely, the idea of not constraining the growth of aviation provides something that has caught my attention from my very first day," he said.

Griffiths acknowledges that the whole approach by the Dubai leadership has enabled decisions to be made quickly.

Speaking at the leading aviation law company HFW's Middle East Aviation Conference in Dubai, which had lawyers from airlines, airports and law firms as well as insurers and financial companies from around the world attending, Griffiths was asked how this differs from the UK, particularly in relation to the proposals for the third runway at Heathrow.

Reminding the delegates that in fact the first proposal for a third runway at Heathrow happened in 1946 he outlined how the decision-making process to adopt the $3.7 billion development plans for DXB to expand beyond a 65 million capacity involving the construction of Concourse D, changes to the runway movement pattern and a small extension (the first all-Airbus A380 concourse). "The approval to go ahead with a range of infrastructure developments took less than 24 hours," he said.

"I think Heathrow terminal five alone, took 10 years to plan and six years to build. And I've heard so many times in my career, 'yes, there will be a third runway at Heathrow', And then a panel of experts assembles all the evidence to say, 'What a splendid idea'. Then someone comes into office and says, 'Actually, we're not going to do that', and then you just go round and round in a circle."

The economic benefit of global connectivity to Dubai is well recognised. By 2030 aviation is projected to contribute $196 billion to the economy, accounting for 32 per cent of Dubai's total GDP, and additionally, the sector will support 816,000 jobs. This equates to "one in every four employees in Dubai being linked directly to the aviation industry," Griffiths said.

With that in mind, Dubai PLC recognised that the existing DXB airport, and its city-centre location could indeed be a constraint to the growth. Dubai earmarked a vast area of the desert in Dubai South, close to Jebel Ali port – itself the 10th largest port in the world and the largest in the Middle East – and announced plans to develop a world-leading airport at what was dubbed Dubai World Central (DWC) and opened phase one of the Al Maktoum Airport to cargo in 2010 and to charter and some low-cost operations in 2013.

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But last year, a $35 billion phase two expansion for DWC was announced, envisaging an airport that will eventually become the world's largest hub in terms of capacity.

It will have five runways and capacity for 150 million passengers annually within the next decade, with the capacity ultimately increasing to 260 million passengers per annum and 12 million tonnes of cargo.

Griffiths sees this as an opportunity to embrace new technology – some of which hasn't even been thought of yet. "For far too long, we've lived with the uncomfortable legacy of very clunky systems," Griffiths said. "We still get that issue where you have to stand in line, you have to wait for a check

Continued on Page 10

CONTINUED FROM PAGE 9

in agent, you have to wait while they write a novel on their computer, all those things that really shouldn't exist in the 21st century.

"And why is it that we've got discrete processes for check in for baggage? Why are we insisting on attaching a paper tag to every suitcase that goes through the baggage system? Why have suitcase manufacturers not actually pre-printed a unique barcode on every single suitcase that can be read by baggage systems very easily?" Griffiths asked

"Technology is going to converge and fundamentally change the travel experience, because we do not need separate check in, security, immigration, boarding, lounge access, baggage, handling. All of that can be converged into a single biometric signature as you walk up to the airport. If your facial recognition footprint is in the system it is recognised, then all of those things could be seen in a single transaction.

Griffiths argues that this must fundamentally change airport design.

"It wasn't that long ago we built buildings and put systems into them," he said. "Now we're designing systems and buildings in harmony together. This is one of the big challenges for Phase Two – we've got to imagine the architecture necessary to incorporate systems that don't exist today. Anything is possible now with technology, we have just got to make sure that the building reflects the process. And by that, what I mean is that we have got to stop putting the devil in the design of airports."

Griffiths believes scale has been the enemy of passenger experience. "If you are in the lounge and you know your gate is 20 or 30 minutes away then you will get anxious," he said.

"We have to recognise that an airport exists to provide a seamless integration between an airborne method of transport with a surface space method of transport. And recognising that as the primary focus, should not lead to design where railway stations are a bus ride away or there isn't same-level integration between public transport and the transport systems necessary to get you to your airplane."

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Griffiths believes this will be fundamental to the success of DWC – and the passenger satisfaction following the transition from DXB,

"We've got to make sure that the design of the new airport doesn't make it feel like a 216 million passenger facility, because if we get it wrong, it will be chaos," he said.

"My job is to recognise the difference between flow and dwell, the check-in process has got to be synergised into nothing more than you see at a railway station, your biometric footprint allows you to pass through a gate, and that's the end of the entire process.

"What we're trying to do is create eight smaller, more intimate airports within that one large ecosystem, and to develop very smart airport transport systems to ensure that passenger stress to get into the gate is minimised. We need to create lounges, retail, restaurants, bars, all the facilities that you enjoy when you're dwelling in the airport, and within sight of your airplane."

Griffiths also believes the development of new technologies in aircraft manufacturing, from composite materials and new engines will benefit the Dubai plan.

"We are witnessing an inversion of that old economy of scale," Griffiths said. "Smaller airplanes going further are the future. There is so much latent capacity at secondary airports across the world that smaller aircraft can make these commercially viable" – and that he says is good for Dubai. "We believe that from Dubai, instead of the 270 cities that you can fly to currently, within 10 years, that will be closer to 600 and that will create an environment where Dubai will continue to be the world's leading aviation hub.

"I think the thing is, the measure of the leadership challenge we've got, is the ability to anticipate and shape the future of what's next, even when we're not really sure what that's going to look like."

WHY YOU SHOULD NEVER WASTE A GOOD CRISIS...

Paul Griffiths believes the Dubai Government's approach to the Covid crisis put the emirate in a great position when it came to recovery and back to growth – and with a lot of lessons learned.

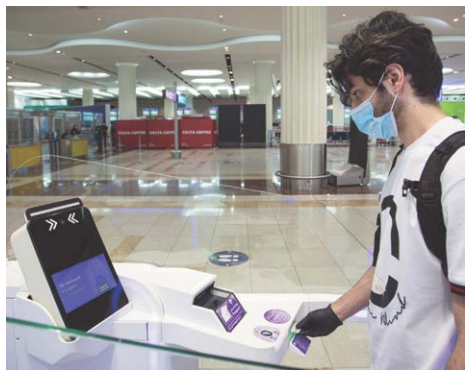
"It was Winston Churchill who said 'Don't waste a good crisis' and that worked for us," he said, "The pandemic gave us a reason to make some of the tough decisions that would have been more difficult in good times." As throughout the industry, the pandemic came to Dubai quick and hard.

"Governments around the world were debating, and there was no clear direction," Griffiths said. "We had our normal seven million passengers through the airport the previous month and we were set for a great year. But on March 24th 2020 I looked out of my office window, and instead of hearing and seeing throngs of people there was no one. We went from heroes in the industry to zero in the space of 24 hours".

"We knew there was no rule for it. We had to make things up as we went along, but, I think the confidence of the Dubai government stood us in amazing stead."

Griffiths said the company was encouraged not to make deep cuts that would make recovery difficult. "I think one of the human failings is that when there's a crisis, people go into a mode where they think the world will never recover and business travel won't happen ever again," he said

"We believed there would be a recovery. We were confident about it. We were also confident that the rebound would be very dramatic, because there's nothing that stokes demand than a shortage of supply, or in this case, two years of people being sat in front of screens at home, waiting for the ability to get around the world again."



Dubai managed Covid well to bring about speedy recovery. IMAGE: DUBAI AIRPORTS

But Dubai was ready, Griffiths said they were able to take advantage of the hockey stick recovery and emerge stronger, leaner and more resilient than ever before. Full shutdown was short for Dubai. Emirates began critical cargo flights. By June UAE residents could fly home and on July 7th 2020 the airport formally reopened to international travellers.

"May's throughput was equivalent to just four hours of May 2019," Griffiths said. "We had to do something about outflow of cash, and renegotiated 61 per cent of our supplier contracts based on significantly lower volumes. We also partnered with people in our supply chain to make sure risk was shared. What we had to be very careful about was that this didn't result in the risk being assumed by us at a later date. It was a risk sharing exercise, not a risk transfer exercise.

"We also drastically reduced staff numbers. We took 34 per cent of our employees out of the business. However, we put in place some novel arrangements with suppliers so we could re employ them through output-based performance contracts, and mothballed a lot of facilities to save costs while moving contracts from supply contracts to partnership contracts.

A deal was struck with Serco to take a thousand frontline staff, to train and be ready for recovery with incentives from customer service ratings.

"The transition from an employment based model to an outsource performance based model was a critical part of our recovery, and certainly very novel in the industry."

In December 2021 DXB returned to full operation capacity with the reopening of Concourse A. The results have been dramatic.

In 2020, the annual traffic fell 70 per cent, in 2021 it grew to 29.1 million passengers. But in 2022 numbers surged 127 per cent to 66 million. 2023 saw DXB exceed its pre-Covid levels with 86.9 million passengers. Last year DXB set the record for international passengers of 92.3 million, surpassing the previous peak of 89.1 million in 2018.

"We learned to be confident that if there is a crisis, it will come to an end, and being ready to emerge from it is just as important as it is to manage the crisis itself," Griffiths said.

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ZERO OPTION: The ZEROe fully electric hydrogen-powered four pod aircraft ZeroE Turboprop.
IMAGE: AIRBUS

Airbus hopeful hydrogen's time

Airbus chief executive, Guillaume Faury, remains convinced of the potential for hydrogen-powered aircraft despite the manufacturer pushing back its aspirations to develop such an aircraft in time for a 2035 entry into service, reports **Graham Dunn**.

Under Faury the airframer has championed hydrogen to power a future zero-emissions aircraft, unveiling its ZEROe concept of hydrogen-powered aircraft in 2020.

Speaking during the Airbus Summit in Toulouse in March, Faury said that while satisfied it can develop and manufacture a commercial hydrogen-powered aircraft, the ecosystem to support hydrogen operations means the business case is not ready.

"We continue to believe in hydrogen," Faury said. "We are absolutely convinced that this is an energy for the future for aviation. But there is just more work to be done.

"We have concluded positively on the feasibility of a commercial airliner powered by hydrogen. But we have come to the conclusion as well, that with today's conditions that it would not be a competitive aircraft compared with other forms of fuel."

He also said more work is needed on the regulatory framework to support certification.

"To some extent we have come to the conclusion that we would be wrong to be right too early," he added. "The time is not right."

Airbus has not given a specific timeframe for when it believes the ZEROe could enter service, but executives cite a five-to-10 year lag in the development of the hydrogen ecosystem, including in terms of pricing and scale.

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Airbus head of the ZEROe project, Glenn Llewellyn explained: "What we have seen for sure is the ecosystem and hydrogen economy hasn't developed as fast as we would like and we are going to use that time to develop the technology further, increase the performance, and in some cases, increase the scalability. That means improving efficiency and weight."

The manufacturer has outlined an updated vision of the ZEROe concept, a single aircraft featuring four rather than the six engines originally envisaged, seating around 100 passengers and which will be powered using hydrogen fuel-cell technology. The latter decision enables Airbus to offer a fully-electric aircraft, meaning it would not emit either CO2 or NOX – another key part of Airbus' sustainability strategy.

"For decades the aviation industry has pursued the ultimate goal, an aircraft that flies with no emissions," said Llewellyn.

"With fuel cells, we believe we have found the right technology to turn this ambition into reality."

Next-generation single aisle

While its hopes for zero-emission aircraft have been pushed back, Airbus is separately focusing on delivering a next-generation single-aisle in the second half of the next decade that would offer a 20-30 per cent improvement in fuel efficiency.

"What will drive the next generation of single-aisle is speed of technologies," explained Airbus head of future programmes Bruno Fichefeux. "We need to make sure these technologies come to maturity so we can bet our design on them, and we are not there yet."

Several new technologies underpin the improvements in efficiencies, notably on the

will come

engine side where GE Aerospace and Safran joint venture CFM International has been working on its RISE open-rotor powerplant.

While no decision on the engine technology has yet been made, the potential greater fuel burn rewards of the open-rotor approach makes RISE a favoured option.

Airbus senior vice-president, propulsion engineering, Frank Haselbach, said: "We would like the open-fan to succeed because clearly it shows the biggest potential for the future and that is what we are working on with our partner. But we have to look at all options."

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Fichefeux noted that other non-propulsion elements are likely to play a much larger part in delivering the step-change in efficiencies than on previous aircraft.

Development work continues on the use of battery technology, lighter materials and wing design. On the latter, Airbus is looking at capturing aerodynamic gains with a foldable longer, slimmer wing design through its 'Wing of Tomorrow' programme.

"The next generation of aircraft will be radically different from what we have today," Fichefeux added. ▲

DELIBERATE GPS INTERFERENCE – CAN WE STOP JAMS SPREADING?

Interference to GPS systems by jamming and spoofing is increasing risk to commercial and business aircraft. **Alan Peaford** *looks at the threat facing carriers and operators.*

The pilots on an Airbus A380 bound for Europe were relaxed. After a normal departure from Dubai the aircraft was at a cruise altitude of 38,000 feet.

In a second everything changed. Instead of the map showing their position over the Egyptian desert they were close to Beirut Airport and at 2,000 feet. "TERRAIN WARNING" came an alert. "PULL UP, PULL UP"

It was late 2023 and the war with electronic interference had begun. This incident was an example of spoofing. Within a year spoofing and GPS jamming had become a familiar experience for crews

GPS jamming and spoofing are significant concerns for aviation, particularly in regions like the Middle East. Jamming involves the deliberate transmission of signals to disrupt GPS receivers, leading to a loss of positioning information. Spoofing, on the other hand, entails broadcasting counterfeit GPS signals to mislead receivers about their actual location.

In the Middle East, especially over areas such as the Iran-Iraq region, there have been numerous reports of GPS-spoofing incidents affecting both commercial and business aircraft.

Pilots were reporting sudden and complete failures of their navigation systems due to these deceptive signals. In some cases, aircraft systems incorrectly indicated positions hundreds of miles off their actual course, forcing crews to rely on air traffic controllers for guidance.

On Christmas Day 2024, the Azerbaijan Airlines Flight 8243 was hit by an anti-aircraft missile and crashed killing all on board. The flight had been hit by electronic interference.

Western investigators and the president of Azerbaijan have concluded that the airplane was damaged by Russian air defences. The Russians had been jamming GPS in the area for weeks to counter Ukrainian drone attacks. This undoubtedly prevented them from properly identifying the Azerbaijan flight, leading them to open fire.

While this may be the first instance of civilian deaths directly attributable to GPS interference, warning signs have been around for years.

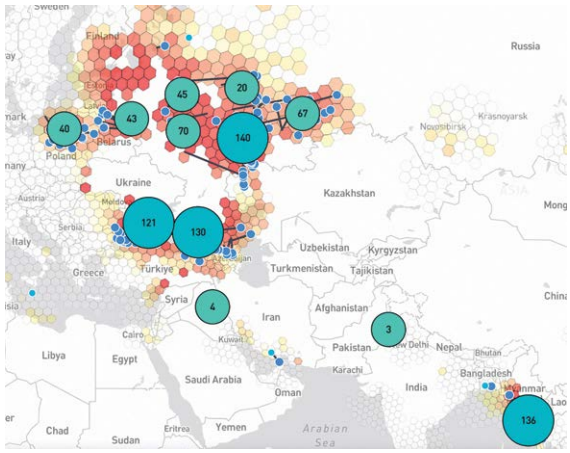
Russia's federal air transport regulator now advises operators to train pilots in non-precision approaches due to potential satellite navigation interference. Rosaviatsia also recommends regular training for aircraft control system failures and worst-case scenarios.

The training issue is under debate across the industry.

At the Middle East Aviation Conference organised by Dubai-based aviation law firm HFW in February, the issue came under close scrutiny.

Former chief engineer of the Red Arrows and safety expert, Ross Priday, the technical director of leading global consultancy in risk mitigation, HKA, said that in one month period from 15 July to 15 August 2024, a total of 41,000 flights experienced system interference of some assault. He warned that ongoing interference incidents is presenting increased risk for crews who are not prepared.

"Very few operators have simulator sessions to adequately train for interferences," Priday said. "Simulator software is simply not programmed to replicate the myriad of failures and problems that are being experienced in the real world. Secondly, in most cases, there's a lack of procedural format for briefings on interference."



A map showing areas of GPS interference over a 24-hour period. More than 41,000 attacks occurred in one calendar month.

IMAGE: OSPREY FLIGHT SOLUTIONS

Priday said that due to the lack of guidance, crews are sometimes coming up with their own procedures for fault, diagnosis and solutions.

"There have been incidents of aircraft manually disabling aircraft systems, and in doing so, unintentionally, cutting across OEM advice for an active malfunction, doing so with the very best of intentions, of course, can adversely impact navigational capability, deviating from certification requirements and operational improvements."

Meanwhile, work on improving GPS receivers to detect and alleviate jamming and spoofing impacts on aircraft systems is "years away" from fruition, according to Honeywell principal applications engineer David Woodcock at the NBAA Operators' conference.

However, some improvements to its enhanced group proximity warning systems (EGPWS) and Epic avionics used on business aircraft, such as Gulfstream, Bombardier and Dassault, could be in place next year to fix incorrect geometric altitude and false alerts. ▲

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SAMI

Algerian authorities have recently taken commitments to boost the air transport sector and strengthen synergies between Air Algérie and Tassili Airlines, reports **Anuradha Deenapanray Chappard**.

Air Algérie's Tassili deal is just the ticket

Algeria is finalising the launch of a new airline dedicated to domestic routes to better support the international growth of Air Algérie. This official announcement was made mid-March by the office of the Algerian president, Abdelmadjid Tebboune, at a work meeting on air transport in the country.

This marks an important step in the significant restructuring of the Algerian air transport landscape. Today, Air Algérie is obliged to serve all the country's airports as part of its public service mission. This reorganisation aims to free Air Algérie from the economic constraints related to domestic services.

The new airline, a subsidiary of Air Algérie, will support the growing demand for air mobility, especially for people living in landlocked regions. It will build on improved air connectivity to boost tourism in the country, facilitate economic exchanges between regions and tackle congestion on main road networks.

It will also enable the national carrier to strengthen and enhance its international connectivity.

Air Algérie and Tassili Airlines have great ambitions and an international development plan to make Algeria a hub in Africa. Air Algérie plans to launch new routes with the renewal of its fleet. It plans to expand its network to several African countries (including Abuja in mid-2025), Europe, China and North America.

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Air Algérie and Tassili Airlines signed a "new strategic partnership agreement" at the end of 2024. This agreement, which "follows on from the framework agreements signed in 2011 and 2019", aims to "strengthen their cooperation in several key areas". Both airlines have agreed "to optimise their respective resources and consolidate air transport in Algeria".

This cooperation covers several key areas, including commercial activities. Air Algérie and Tassili Airlines wish to improve their offers and services to better meet passenger expectations. Modernisation of information systems is also a priority through high-performance technological tools for better operational management.

The agreement also covers training and aircraft maintenance to ensure increased reliability of aircraft and freight transport, and to meet growing logistical needs. Air Algérie recently announced that the maintenance of its aircraft will be made abroad due to spare parts issues entailed by supply chain problems still persisting globally.

This agreement reflects the complementarity between Air Algérie and Tassili Airlines, two actors with distinct yet strategic roles in the Algerian air transport sector.

Air Algérie, a historical player and the main operator of air transport in Algeria, plays a central role in the country's domestic and international connectivity.

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On its side, Tassili Airlines, a subsidiary of Sonatrach oil group, was initially set up to meet the specific transportation needs of Sonatrach's personnel.

It has gradually expanded its activities, particularly in cargo and regional flights. This positioning allows Tassili Airlines to bring expertise and specific capabilities to strategic segments.

According to both parties, the compatability between the two airlines is reflected in a "pooling of resources" and an "optimisation of skills" to "meet the challenges of modernisation and growth of air transport" in Algeria.

Air Algérie has also inked a contract with CPaT Global, the market leader in distance learning solutions for airlines, training institutions, aircraft maintenance companies and aviation experts. CPaT Global will provide its comprehensive pilot training suite for Air Algérie's pilots, covering a diverse fleet that includes the Airbus A330 CEO, Airbus A330 NEO, ATR 72-500s, ATR 72-600, Boeing 737 NG, Boeing 737 Freighter, and Boeing 737 MAX.

These partnerships promise brighter days for air transport in Algeria.

▼ Air Algérie and Tassili Airlines have great ambitions and an international development plan to make Algeria a hub in Africa. ▲

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SolitAir aims to be an ace in the pack

Founder and CEO of SolitAir, Hamdi Osman explains why he believes his freight airline can carve out a niche in a market dominated by the big boys.

Alan Dron *investigates.*

In the mid-1970s, Hamdi Osman graduated from Egypt's Helwan University and headed to the US to play in the country's fledgling national soccer league.

He played for six months before, as he puts it: "I had to grow up and get a real job." That job was with freight specialist FedEx Express and lasted for 34 years. Osman is now putting that experience of the freight industry to good use with the creation of his own cargo airline, SolitAir.

Dubai World Central-based SolitAir plans to seek air operator certificates (AOCs) in several countries where it intends to operate: "We're looking into being a major player in Africa and I'm looking to be an intra-Saudi Arabia player. We're also looking at the CIS for future development and we're in India by default because one of our sister-companies, ASL, is on the AOC of QuikJet in Mumbai."

Osman particularly wants to connect 'the global South' within six hours' flying time of Dubai.

The fleet is planned around the Boeing 737-800 freighter: "About a week ago we got aircraft number four on dry lease from [Ireland-based] ASL Airlines; the first three were wet-lease."

Osman has big ambitions: "We're planning on expanding our fleet to a total of 10 aircraft before the end of the year," he said.

Boeing 737-800 freighter conversions, with their 23-tonne payload, have been popular with cargo operators, partly because of their ready availability as a pre-owned type. However, with Boeing and Airbus struggling to deliver new aircraft, many airlines are holding on to their 737-800s for longer than anticipated. Whether this will affect SolitAir's ability to source more aircraft remains to be seen.

The cargo market is a crowded one; Osman sought to raise SolitAir's profile by attending multiple conferences and speaking on industry panels, using the opportunity to get the new company's name out in the marketplace.

He said he has taken the passenger airline model of scheduled, daily flights and applied that to cargo flights, no matter how much – or how little – freight is booked: "We will be in Riyadh at 11.30 at night every single day, whether we have 1kg or 23 tonnes." It will be the same on other routes in SolitAir's growing network: "That will be our differentiating feature."

Osman sees SolitAir complementing the large cargo airlines with widebody aircraft that operate intercontinental flights.

When a Boeing 777 freighter arrives from China at a major Middle East hub like Dubai or Riyadh with 100 tonnes of freight, for example, SolitAir will then fly the 'spokes' from that hub, taking smaller loads to secondary destinations such as Kuwait, Bahrain or Oman.

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With this business model, SolitAir has signed agreements "with almost everybody you can think of" – airlines, integrators, freight forwarders and e-commerce companies. "That's what we've been doing for the past six months."

Osman retired from FedEx Express in 2012 and becoming an 'angel investor', investing in virtually every sector – education, healthcare, food and beverage sector – but, ironically, not logistics.

During the pandemic, he saw that carrying freight saved many airlines when passenger numbers disappeared. He also saw, however, that the hub-and-spoke model was broken.

He noted that many e-commerce shipments to customers were taking four or five days to be delivered, a time gap that meant many customers had found a cheaper alternative in the intervening period and, as a result, rejected the goods when they eventually arrived at their door.

To avoid this, it was obvious that packages had to get to their destinations either the day they ordered it, or within 24 hours. That is what SolitAir aims to do.

"I started calling freight forwarders, integrators and e-commerce companies, saying: 'If I put together a daily scheduled cargo aircraft, would you be interested?' The answer across the board was 'Absolutely, positively, yes.'"

For former soccer player Osman, that is now his goal. ▲

Hamdi Osman particularly wants to connect the 'global South' to new destinations and intends to build its fleet around freighter versions of the Boeing 737-800.
IMAGES: SOLITAIR

Bridging the Gulf: Regent Craft says that its Viceroy will dramatically cut journey times between points in the UAE and to elsewhere in the Gulf.
IMAGE: REGENT CRAFT

EASY GLIDER

A radical new form of transport coming to the UAE promises to cut drastically the time to travel between the country's largest cities. **Alan Dron** *investigates.*

Is it an aircraft? Is it a hydrofoil? Is it a vessel? The seaglider scheduled to make its debut between Abu Dhabi and Dubai early in 2027 promises to significantly cut the time required to travel between the two cities.

The technical term for the seaglider, built by US firm Regent Craft, is a 'wing in ground effect' (WIGE) vehicle. This takes advantage of a physical property produced when a winged craft flies just above water or flat land, utilising the 'ground effect' – a phenomenon where air pressure is increased beneath a wing flying close to a surface, allowing it to remain airborne just above the water or other surface.

This most spectacular previous examples of WIGE craft were produced by the Soviet Union, which developed several models for naval use in the 1960s to 1980s. These huge craft, powered by multiple jet engines and mounting large anti-ship missiles above their fuselage, were used on inland waters. So large was one model that Nato dubbed it 'the Caspian Sea Monster'.

Regent Craft's initial Viceroy model is rather more modest in scale, but has reached the point of sea trials in Rhode Island's Narragansett Bay, with first flight scheduled for mid-year. The Viceroy prototype is 55ft long, mounts 12 electric propellers on the leading edge of its 65ft/19.8m span wing and is designed to carry two crew and 12 passengers 180 miles at 180mph (288km at 288km/h), flying over water at a height of approximately one wingspan to minimise drag.

A seaglider is flown not by pilots, but by master mariners and the craft are classed as ships, which means that certification in the UAE will be handled by the Federal Maritime Authority.

In the US, certification is being handled by the US Coast Guard "and as soon as we have firm orders anywhere in the world, we engage with the local maritime authority", said Regent Craft's regional director Middle East, Dubai-based Shadi El Abdallah.

An unnamed Abu Dhabi organisation has "committed to a pretty large fleet of Viceroys," he said.

Initial plans are to fly between Abu Dhabi and Dubai. The motorway linking the two cities is notoriously busy and can take a considerable time to drive. The Viceroy will be able to cover the distance in around 30 minutes, with fares estimated at $50-60.

Also on the horizon are flights between Abu Dhabi and Ras Al Khaimah, which will cut the three-hour drive to just one hour. Internationally, the roughly 300km trip between Abu Dhabi and Doha would be around 90 minutes (including departure formalities) by seaglider, considerably reducing the travel time of an aircraft when one adds all the time a traveller spends at an airport.

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An added advantage of seagliders is that relatively little infrastructure is required to host them: "Dock geometry has to be changed to accommodate the wing, but it's pretty much like any other vessel," El Abdallah said. Electric charging points for the seagliders' motors have to be installed. "We're talking to the UAE and most ports and marinas have the necessary charging capability."

In February, the company signed an agreement with Strategic Development Fund (SDF), the Abu Dhabi-based investment company that is part of the EDGE Group, to establish a joint venture that will bring seaglider manufacturing capabilities, maintenance services, and crew training to the UAE.

Beyond the Viceroy, United Marine Egypt (UME) shipping will be the first delivery customer for Regent's much larger 50 to 100-passenger Monarch seaglider, with delivery targeted before the end of the decade. This deal builds on UME's existing order for the 12-passenger Viceroy.

"They're looking to connect a lot of the tourist destinations in Egypt such as Hurghada and Sharm-el-Sheikh with mega-resorts in Saudi Arabia, such as Neom," El Abdallah explained. "They see an opportunity to install rapid transport between Egypt and Saudi Arabia.

Both Abu Dhabi and Dubai are rapidly pressing ahead with plans to launch services by the new generation of electrically-powered eVTOL aircraft, reports **Alan Dron**.

Taxi plan: Joby Aviation's eVTOL aircraft is currently undergoing flight-tests in the US.
IMAGE: JOBY

Vertiport brings air taxi service closer

Construction is under way on the first 'vertiport' that will support Joby Aviation's planned electric air taxi network in Dubai.

Work on the site at Dubai International Airport began last November. It will be one of an initial four vertiports in Dubai, with the others located at Palm Jumeirah, Dubai Downtown and Dubai Marina. Joby hopes to launch services late this year. The planned service was announced as part of an agreement signed by Joby, Dubai Road & Transport Authority (RTA), and infrastructure provider Skyports in February 2024.

The three-storey vertiport will be integrated with Dubai's multimodal transport network, providing connectivity with Dubai Metro's Emirates Station 2, Dubai International Airport, parking infrastructure and other ground transportation options.

It is planned to include two take-off and landing stands, each equipped with the Joby-designed Global Electric Aviation Charging System to support rapid vehicle re-charging between flights.

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"Our air taxi service in Dubai will offer tourists and residents the opportunity to experience a revolutionary travel experience, with faster movement between key destinations and breathtaking views of the city skyline," Joby founder and CEO, JoeBen Bevirt said.

An essential stage in the process will be Joby obtaining an Air Operator Certificate (AOC) from the UAE's General Civil Aviation Authority. The AOC will demonstrate the readiness of its aircraft for passenger-paying services, as well as the necessary support services such as training and maintenance.

Joby's electric air taxi is designed to carry a pilot and four passengers at speeds of up to 200 mph, offering high-speed mobility, particularly in urban settings, with a fraction of the noise produced by helicopters. As an electric vehicle, it will also produce no emissions.

▼ Archer's goal is to replace 60–90-minute vehicle commutes with estimated 10–20-minute electric air taxi flights. ▲

Meanwhile, work to bring eVTOL flights to is neighbouring Abu Dhabi is also proceeding rapidly, where Joby rival Archer Aviation has plans to provide electric air taxi services.

In December 2024, Archer announced an agreement with stakeholders to launch first commercial electric air taxi services there.

The Abu Dhabi Investment Office will facilitate coordination among Abu Dhabi organisations in preparation for launch of commercial operations. These include Abu Dhabi Airports, private aviation operator Falcon Aviation Services, Etihad Aviation Training, the GCAA, Global Air Navigation Services, Global Aerospace Logistics and the Integrated Transport Centre (Abu Dhabi Mobility).

At a week-long workshop at Archer's HQ in San Jose, California, last November, representatives from Archer and the GCAA worked together to establish the necessary regulatory framework to certify Archer's Midnight aircraft and approve commercial air taxi operations in the UAE.

Like Joby in Dubai, Archer is aiming to launch services in its Midnight eVTOL aircraft by late this year.

In February, Archer announced a 'Launch Edition' commercialisation programme for the Midnight. The aim is to establish a blueprint to deploy Midnight in multiple early adopter markets.

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Abu Dhabi Aviation (ADA) is Archer's first Launch Edition customer. Archer personnel will now work together with Abu Dhabi Aviation, which describes itself as the largest commercial helicopter operator in the region, to fly Midnight in the UAE, targeting passenger flights in Abu Dhabi.

Archer plans to deploy an initial fleet of around seven Midnight 'Launch Edition' aircraft to ADA, as well as pilots, technicians, and engineers to support the initial ramp-up of operations.

The Launch Edition programme "is how we'll bring Midnight from the manufacturing line to our first customers—and it's a playbook we'll run repeatedly as we scale our operations globally. Thank you to Abu Dhabi Aviation for being our first Launch Edition customer," said Archer founder and CEO, Adam Goldstein. The aim is to start bringing in early revenues from international operations before the aircraft is certificated by the FAA, the US regulator.

Archer's goal is to replace 60–90-minute vehicle commutes with estimated 10–20-minute electric air taxi flights. Midnight is a piloted, four-passenger aircraft designed to perform rapid back-to-back flights with minimal charge time between flights. ▲

■ **UAE races to turn eVTOL dream to reality – Page 34**

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GAMA CHANGER...

SHARJAH SWITCH CAN BOOST SERVICE AND GROWTH

Gama Aviation's new development in Sharjah is helping the capacity crunch hampering business aircraft movements in the region. **Ella Nethersole** *speaks to Tom Murphy, managing director of Gama Aviation's FBO Services.*

Pressure has been mounting since Dubai's international airport reacted to increased demand from commercial flights and withdrew 19 hours of slots per day for business jets.

However, Sharjah International Airport has emerged as a preferred alternative for private and business aviation clients facing increasing congestion at Dubai International Airport, where business jet slots are becoming limited. Recently, the airport's authority introduced extensive slot restrictions for general aviation flights.

Step in Gama Aviation's Sharjah fixed base operation (FBO) which is capitalising on this shift, achieving record passenger growth and positioning the airport as a premier gateway for business aviation in the Middle East.

Gama Aviation received a record number of passengers for 2024.

"Since we began our operations in Sharjah 10 years ago, the business has grown dramatically, and we've identified several main drivers of this growth," said Tom Murphy, managing director.

"These include the growing familiarity with Sharjah International Airport and the operational efficiencies that it brings, such as the lack of slot restrictions and reduced taxi times, compared to alternative airports in the vicinity.

"In the past, one of the main challenges of Sharjah was the perception of there being heavy road traffic in the emirate at all times of the day. However, over time clients have learnt this is not the case, alongside this road traffic across Dubai and the rest of the UAE increased – so the perception has shifted and lost its weight. A journey to somewhere like Dubai's downtown or the financial centre can be just 20-30 minutes from Sharjah Airport."

Gama's Sharjah FBO has received a growing volume of Asian operators, which Murphy believes is because the unrivalled operational efficiencies it provides.

"Besides the airport having zero slot restrictions, zero airspace congestion, and zero taxiway congestion Our FBO is ISBAH stage 3-approved and offers 30-minute quick turns, making it appealing to Asian operators that require efficient fuel stops and crew changes."

He added: "Our recent participation at the BAAFEX Show in Singapore was a significant success, with numerous operators managing flights between Asia and Europe expressing strong interest in our services. Many have since chosen to utilise Sharjah as their preferred transit hub, recognising its strategic advantages as a connecting point along their routes."

So, just what can guests expect from Gama's new FBO facility opening this year?

"Once the facility is completed, we will relocate our business to a new area of Sharjah International Airport. With a total area of over 80,000 sqm, the site will contain a 12,000 sqm hangar and 3,000 sqm two-storey VIP terminal that brings together all services and facilities under one roof. The site will be exclusively operated by Gama Aviation and accommodate solely business jet aircraft, providing access to the airport's runway through a newly-built taxiway," explained Murphy.

"The proximity of our site to the runway will enhance the existing operational efficiencies provided by Sharjah airport, reducing taxi time to 90 seconds, saving our guests' time and fuel costs.

"The facility offers a full complement of in-house ground support equipment to support operators, including dedicated fuel bowsers and dedicated immigration, customs, and police counters, as well as having a VIP terminal that contains various high-end amenities that elevate the guest experience."

Murphy said its hangar can hold up to 20

Tom Murphy: "With a total area of over 80,000 sqm, the site will contain a 12,000 sqm hangar and 3,000 sqm two-storey VIP terminal that brings together all services and facilities under one roof." IMAGE: GAMA

aircraft of all business jet types, including Airbus ACJs and Boeing BBJs.

Speaking about the future, Murphy said the company is 'committed' to expanding in the region. "This may be through our business aviation (MRO, FBO, AM&C) or special mission business units," he explained.

"With our strategic location, operational efficiencies, exclusive facilities and bespoke service, we are fast becoming the business airport of choice for travellers coming from or heading to downtown Dubai, Sharjah and the northern emirates.

"Our integrated approach, combined with our operational expertise, delivers cost-effective solutions and seamless guest experiences, setting new standards for operational excellence in business aviation." ▲

The Dubai-based charter flight operator, Jet Luxe, has outlined an ambitious five-year growth plan that aims to turn the company into a billion-dollar company by 2030, reports **Kaleyesus Bekele**.

MADRID: HOW WE TURNED JET LUXE INTO THE REAL DEAL

Jet Luxe was established in early 2020 with the aim of providing efficient aviation solutions globally. Headquartered in Dubai, the company has set up offices in Casablanca, Mexico City, Miami, London, Mumbai and Hong Kong. The company is known for private jet charter, aircraft management, and aircraft acquisition services.

Jet Luxe was founded during the outbreak of the Covid-19 pandemic and raising capital was not an easy task recalled Gabriel Meza Madrid, the founder and CEO of Jet Luxe. "No investor was willing to give me a dime. So I had to do it all by myself," Madrid said.

But Covid has also brought business opportunity for the business aviation industry. Soon enough, the company was operating charter flights that reunited families. The company was doing MEDVAC and emergency flights during the pandemic.

The company primarily operates in the MENA region, with offices in Dubai and Casablanca. But it also operates in the Americas and Europe.

Madrid explained: "We want to focus on emerging markets such as India and Africa. Our Casablanca` office was opened a year ago, but it has grown very fast. Using our Casablanca office, we are serving Western and Central Africa. Africa is growing and it has a huge potential for growth that many people fail to notice."

India is also one of the key markets for Jet Luxe. The company also wants to grow its operation in Saudi Arabia.

According to Madrid, his company has a big commercial team adding that it is strengthening its working relationship with aircraft owners by optimising their assets. Jet Luxe has eight aircraft under its management including Bombardier Global 6000 and 5000, Cessna Citation 5, Hawker 800, Hawker 4000 and Embraer Legacy 500. "Every day we are trying to incorporate more aircraft into the light aircraft management model," Madrid said.

Jet Luxe has grown exponentially. With a humble beginning of a US$5,000 credit card its annual revenue has reached US$62m. Last year the company conducted 2,800 flights. "Our business operation is growing each year," Madrid said.

According to Jet Luxe's growth plan, the company will have one billion dollar annual revenue by 2030. The company plans to conduct 10,000 flights per year and to have 1,000 brokers working in the company. It also anticipates having 100 sustainable aircraft under its management.

The Middle East is a very competitive market and to survive and thrive in the region an aviation company has to excel in service quality and offer competitive price. Madrid strongly believes in building a commendable reputation.

"Your customer service has to be second to none. In Jet Luxe we do two things. One we make sure that our team has the best resource and technological platform. Second, we make sure that our customers get the highest standard of service," Madrid said.

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Like any other aviation company Jet Luxe has been facing challenges. Tracking payment is one of the most common challenges that small aviation companies face in daily operation. "There is always a delay in securing payments from various countries due to financial policies. That strains our liquidity," Madrid said.

The other major challenge is talent search and staff retention. Recruiting and training young professionals is certainly a daunting task. "After you train and mentor a young person by investing your money and time, he will be lured away by another company. Or he decides to change his profession. To keep your young professionals happy is a big challenge," Madrid said.

To support the company's growth and alleviate the staff turnover challenge Jet Luxe is planning to establish an accredited brokerage academy. "We are in the process of forming Jet Luxe Training Academy in Dubai and Casablanca. We will have the best training centre where we shall nurture different talents," Madrid said. ▲

Gabriel Meza Madrid: "In Jet Luxe we do two things. One we make sure that our team has the best resource and technological platform. Second, we make sure that our customers get the highest standard of service." IMAGES: JET LUXE

THE PERFECT PLACE

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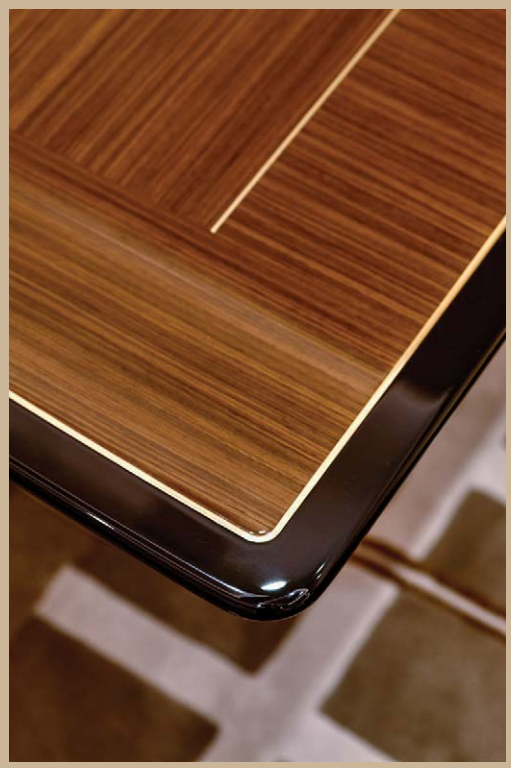
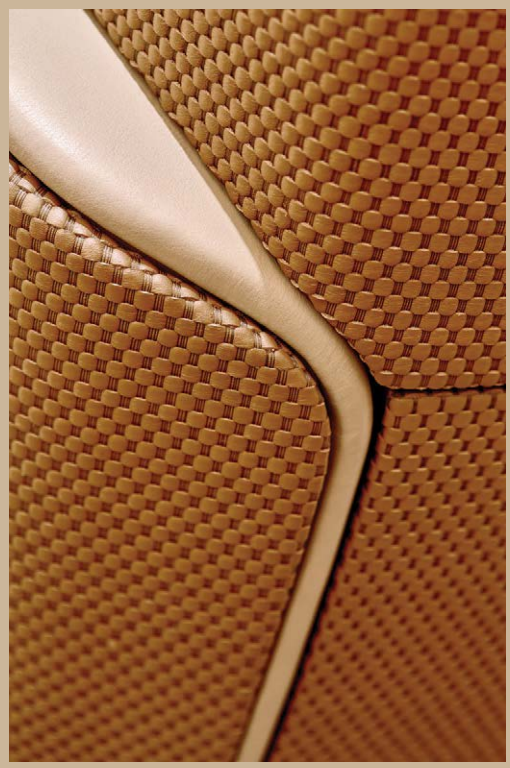

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KAAN OPENER...

The two biggest military spenders in the Middle East – Saudi and UAE – take the first steps towards purchase of Turkish fifth-generation fighter. **Alan Warnes** *reports.*

Both are showing interest in the aircraft's development programme. In late 2024, A visit by Royal Saudi Air Force commander, Prince Turki bin Bandar al Saud brought reports that Saudi Arabia was keen on the Kaan.

The author asked TAI's general manager Dr Mehmet Demiroglu about the interest, and all he would say was, "There a number of countries interested and I'm not going to deny that Saudi is one of them!"

With the USA denying the export of the Lockheed Martin F-35A to Saudi and the UAE, because of concerns from Israel, the Kaan would be a very good option. Both have burgeoning indigenous defence industries, and the Kaan could bring a lot of technology transfer, if both countries wanted enough numbers of the Kaan.

Turkey has a requirement for around 200 of the new jet, and Saudi has a need for around 100 to replace the older Boeing F-15s and Panavia Tornados, while the UAE seeks a successor to its 80 Lockheed Martin F-16 Block 60s.

With the restoration of relations between Turkey and Saudi Arabia in 2022, after both took opposing sides in the Libya war that saw a ceasefire agreed in October 2020, talks on Kaan have subsequently increased.

It comes after Saudi Arabian Military Industries (SAMI) announced in August last year that 70 per cent of the components for the TAI Akinci unmanned combat air vehicles procured by Saudi Arabia would be manufactured domestically, reflecting Saudi efforts to enhance its defense industrial capabilities.

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A similar deal on the Kaan would be big business for SAMI, and contribute significantly to Saudi's Prince Mohammed bin Salman's 'Saudi Vision 2030' ambitions.

UAE has been looking for a fifth-generation fighter for several years, having agreed to purchase 50 F-35As during the first Trump administration in 2020, it apparently pulled out during Joe Biden's term in office due to pre-conditions over UAE's relationship with China.

Since then, the UAE which enjoys a good relationship with South Korea through long-term agreements with the likes of LIG, has shown keen interest in South Korea's Korean Aerospace Industries (KAI) fifth-generation KF-21 Boramae. The UAE's interest in the Kaan is understandable and would be an attractive proposition for Edge, the ever-growing UAE defence company.

"The main advantage of Kaan is it will be Turkish, so there will be no restrictions [like the US DoD's ITAR (International Traffic in Arms Regulations). Everything onboard is indigenous, the engine and the ejection seat are the only two main systems that are not indigenous yet," Dr Mehmet Demiroglu said.

The Kaan will replace the entire fleet of 240 Turkish Air Force Lockheed Martin F-16s, although with manned-unmanned teaming developments that will include both the Anka-3 UCASTAI Aksungar UCAS and Super Simsek subsonic multi-mission UAS it won't necessarily be a like-for-like replacement.

Dr Demiroglu told *Arabian Aerospace* that serial production is expected to start in 2028. "Its ambitious, but we will not jeopardise safety to meet that goal."

Top target: The Turkish fifth-generation fighter, Kaan is in demand, by customers who want big numbers.

Right: Turkish Aerospace's Anka 3 UCAV will work alongside the Kaan in its manned-unmanned teaming philosophy.
IMAGES: TAI

MENA FORCES BOOST SKILLS WITH EXERCISES

One of the six UAEAF&AD Lockheed Martin F-16s that attended Red Flag 25-2 blasts off the Nellis AFB runway in Nevada. This example is a dual seat F-16F.
IMAGE: USAF

The Qatari, Saudi and UAE air forces have been ramping up their tactical and integration skills with other air forces by participating in air exercises in Europe and the US.

From February 24 to March 14, the Royal Saudi Air Force deployed six Boeing F-15SA Eagles from 6 Squadron based at King Khalid Air Base, Khamis Mushayt, to RAF Waddington in the UK for Exercise Cobra Warrior, the largest exercise run by the RAF.

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They were among 50 or so aircraft that participated in drills that primarily used to qualify new qualified weapons instructors (QWIs). It was effectively a coalition of France, Turkey, Saudi Arabia and the UK according to exercise director group captain Jim Calvert.

Over the three-week period, there were 12

The first deliveries will be the 20 basic Block 10s in 2028/29, then 20 Block 20s (no difference in terms of structures, but in software and systems readiness) and the Block 30s with the new Turkish engines should be available in 6-7 years.

Every weapon will be produced by Turkey – Roketsan, Tubitak-SAGE and Aselsan plus any other weapons in the inventory. All the aircraft will be upgraded to Block 30.

Exports are unlikely to take place before the early 2030s. ▲

IN EUROPE AND THE USA

missions that grew in complexity as the exercise progressed.

The first week concentrated on air to air training, when Blue Air took on Red Air, while offensive counter air and and surface attack missions took place in the second week before moving to dynamic targetting, personal recovery and long-range air interdiction strikes.

Most of the missions took place over the North Sea.

According to the RSAF deputy commander, lieutenant colonel Faisal Turki, his personnel had been "working hard hand in hand, wing tip to wing tip with our colleagues of the RAF.

"This is the first time we came here with the F-15s, so it's a different environment than what we have in the region and at home."

In March, the RSAF sent six Eurofighter Typhoon F2/T3s to the Red Flag exercise at Nellis AFB, Nevada where the United Arab Emirates Air Force were flying six Lockheed Martin F-16E/Fs.

Red Flag is undoubtedly the biggest exercise where pilots can train in the toughest air combat training environments.

Pilots hone their war-fighting skills, testing their tactical expertise in realistic and complex, large-scale air missions.

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Running from March 10-21, 2025, Red Flag 25-2 saw 1,500 participants from 15 squadrons representing the RSAF, UAEAF&AD, Turkish Air Force, US Air Force and US Marine Corps.

The Qatari Emir Air Force sent four Boeing F-15QA Eagles, while the UAEAF&AD sent four Dassault Mirage 2000-9s to Exercise Iniochos, an annual multinational air exercise hosted by the Hellenic Air Force at Andravida AB, western Greece between March 14 - April 13. ▲

HMS LANCASTER WILDCATS SWAPPED IN MIDDLE EAST

In March, the Royal Navy swapped a Wildcat HM2 anti-surface helicopter deployed to the region aboard HMS Lancaster, with support from a RAF C-17A Globemaster.

In addition to its anti-surface warfare role, which sees it armed with the short-range MBDA Martel to engage low-flying ground threats and the MBDA Sea Venom anti-ship missile, the Wildcat is used for force protection and counter-piracy ops. The HMS Lancaster Type 23 frigate is currently in the Middle East as part of Operation Kipion.

In mid-March, the HMS Lancaster struck drug traffickers in the region when it seized a haul with a market value of £5.4 million in the northern Arabian Sea.

In the Navy's first bust of 2025, sailors and Royal Marines from the Portsmouth-based warship subsequently destroyed 340kgs of heroin and 83kgs of methamphetamine, following a concerted effort that saw drones play a key role for the first time.

It was thanks to the sharp eyes of operators on one of the new Peregrine remote-controlled mini-helicopters that suspicious activity was spotted on boats side-by-side in the dead of night.

That prompted the frigate to launch a Wildcat helicopter for closer inspection. When its crew arrived on the scene they could clearly see packages being transferred from a small fast boat on to a dhow, the traditional fishing/cargo vessels commonplace in the region. The actions were the clear sign of a drug smuggling operation.

Under Operation Kipion the UK has maintained a permanent maritime presence in the Persian Gulf since 1980.

Initially known as the Armilla Patrol, in June 2011 the deployment evolved into Operation Kipion which represents the Royal Navy's current maritime security presence in the Persian Gulf and the Indian Ocean.

Operation Kipion is a combination of Royal Navy operations in the Middle East patrolling the Strait of Hormuz, and Suez Canal and conducting counter-piracy operations in the Indian Ocean. ▲

The Wildcat HM2 deployed aboard HMS Lancaster was recently swapped over. A RAF C-17A Globemaster was used to fly a replacement helicopter to the Middle East and return the other one to UK for deep maintenance.

IMAGE: CROWN COPYRIGHT

This year's biennial International Defence Exhibition (IDEX) took place at the Abu Dhabi National Exhibition Centre (ADNEC) between February 17-21. **Arabian Aerospace** *was there, looking over local innovations, particularly from Edge – UAE's burgeoning aerospace defence company formed in 2019, being top of the agenda.*

IMAGE: BILLYPIX

THE SPIRIT OF THE JENIAH UCAV CONTINUES TO EVOLVE

Two years on from being unveiled at IDEX 23, the Jeniah (Arabic for ghost) UCAV has clearly evolved. The first significant modification to the model, which is a newer version from 2023, is the electro-optical targeting system (EOTS) positioned under the nose.

The EOTS uses infrared imaging to detect and track targets, as well as laser designation for guiding precision munitions, without adding external targeting pods that would make it less stealthy.

Elsewhere, the undercarriage doors are now jagged and while no powerplant has been selected, there are aspirations to acquire a turbofan engine, with Edge having been in discussions with engine manufacturers to meet this requirement.

Positioned next to the Jeniah was a Halcon P32 Thunder precision-guided munition, of which two could be housed in the weapons bay.

The low-observable high-speed UCAV, which will be used for manned-unmanned teaming operations is not expected to fly for three-four years, so obviously by 2030, when the Rafale F5 is expected to be launched with the Dassault Neuron UCAV for manned-unmanned teaming the Jeniah could be ready. ▲

Powertech propels Edge to new heights

Edge Group's newly-established Powertech engine business is looking to secure the first partnership agreements over the next few months to help underpin its ambition to develop a broad range of engines to power its own and other aircraft.

"We have already signed high-level strategic term sheets and MoUs with strategic partners to explore the different engines that we can co-develop," Khaled Al Zaabi, Edge's president of platforms and systems, said.

Firm partnerships should be in hand ahead of the November Dubai Air Show, he said.

Powertech represents one of Edge's most ambitious efforts to make the United Arab Emirates more autonomous for its supply of military equipment. It is intended to complement the state-owned companies' autonomous vehicle efforts.

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"When engineers start to develop an aircraft, the first question they ask is: 'what engine do I have around?' And then they basically design the platform around the engine," Al Zaabi said.

"So for us, propulsion systems, from piston engines, to micro-jets, to medium-sized jets. to large turbojet propulsion systems, is our destiny, because unless we control that or work with partners that enable us to be able to design and develop them, we will never really be taken seriously in terms of delivering our own capabilities."

The partnerships could lead to joint ventures that develop their own intellectual property to address initially Edge's needs, "but then we can address international markets as well," he added.

Edge is not looking to take on large commercial aircraft engine makers, such as General Electric or Rolls-Royce, he noted, looking to stay away from engines above 35,000lb. of thrust.

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Al Zaadi said Edge's uncrewed aircraft portfolio is now growing to the size that making the engine investment makes sense. The company began to seriously explore the endeavour about a year ago.

"With the right volumes, with the right demand and production that we have, it makes full economic sense for us to be able to embark into developing our own propulsion systems," he said.

The company is not blind to the challenges of developing sophisticated propulsion systems.

"We're going into this with very wide eyes, wide open. We know the difficulties; we know the complexities. We know this is not an easy journey," Al Zaadi said.

Edge used the IDEX defence show to disclose one of its first efforts, the six-cylinder P145I to power uncrewed systems.

Powertech is rapidly growing and looking to build up its production capacity. ▲

Calidus B-250T 981, seen wearing an orange colour scheme at the company's stand, was fitted with several weapons systems. IMAGE: BILLYPIX

FLIGHT TESTS TO SPEED UP CALIDUS

Calidus now has three more B250 prototypes being built at its Abu Dhabi facility, earmarked for development and certification of the type. They are representative of the 12 aircraft on order (and 12 on option) by the UAEAF&AD known as 'P12'. The first (001) is, according to one source, expected to fly soon and will feature both ground attack and advanced mission trainer configurations.

The B-250 is being designed for missions such as close air support, intelligent surveillance and reconnaissance, persistent air support, counterinsurgency as well as training.

All three new prototypes will be involved in several flight test campaigns to speed up the certification of the mission systems – such as electronic warfare, stores management system and weapons integration.

The example found at the Calidus stand in the outside area, B250T 981 was wearing an orange colour scheme, while the second prototype, B250 982 was in a grey scheme.

The Desert Sting 16 and Desert Sting 25, as well as the Halcon P32

Khaled Al Zaabi: "It makes full economic sense for us to be able to embark into developing our own propulsion systems." IMAGE: EDGE

EDGE AND LEONARDO ENHANCE SYNERGY

Edge and Leonardo signed an agreement at IDEX to further enhance their partnership in developing solutions across six critical domains.

The agreement aims to strengthen existing synergies and capitalise on new complementary opportunities for deeper cooperation focusing on key domains.

These are airborne capabilities including radar (particularly for multi-mission aircraft); anti-tactical ballistic missile defence; counter-drone and mobile surveillance systems; naval combat management systems; radio communications; and optronics commander sight.

Hamad Al Marar, Edge Group managing director and CEO, said: "This important step marks the next phase in our existing strategic agreement with industry leader Leonardo, building on the opportunities presented by the strong relationship between the UAE and Italy.

"Fundamentally, however, it reinforces our vision of growth through mutually beneficial partnerships, ensuring a win-win approach to sourcing and realising complementary multi-domain opportunities across the world, and expanding these synergies for continued economic growth, innovation, and excellence, all in support of the sustainable preservation of security."

Lorenzo Mariani, co-general manager of Leonardo and Hamad Al Marar, Edge Group managing director and CEO signed a deal for closer co-operation. IMAGE: EDGE

B-250 CERTIFICATION PROCESS

Thunder precision-guided munition, are all being integrated for the ground-attack role.

One surprise addition to the aircraft's armoury was Calidus's own Alheda (name for a Falcon who flies from fire to fire) air-to-ground weapon.

Initially a ground-to-ground weapon, housing high-explosive fragmentation and high-explosive anti-tank warheads, integration of the air-launched weapon is currently on going.

Progress with the B250T trainer version, like 981 at its stand, is not as rapid as the B250 version, as the UAEAF&AD is still considering all its basic trainer options.

In addition to the 12 on order with 12 options for the local customer, announced in a $620 million deal at Dubai Airshow 2019, another eight are also being built in the WX-80 configuration specifically for the cloud-seeding or rain-maker role.

According to a source, Calidus is expecting a substantial order for the B250 from its first export customer by the end of the year.

BOEING BELIEVES IN F-15EX FACTOR

As Saudi Arabia mulls its F-15 replacement options, Boeing argues the latest version's ability to enable close integration with uncrewed systems should give it an edge over rivals.

The combination of the Boeing F-15EX's dual-seat and its digital cockpit system would allow the Royal Saudi Air Force to more easily move toward closer manned-unmanned teaming in the future battlefield, said Kirk Schulz, regional director for the Middle East, Turkey and Africa at Boeing's defence unit.

Saudi Arabia has signalled it is looking for more than a fighter. The UK and Italy, for instance, have dangled potential Saudi involvement in the tri-national global combat air programme sixth-generation fighter project that also involves Japan to entice Riyadh to pick the Eurofighter Typhoon for its F-15 replacement.

Schulz said the US and Boeing also have potential opportunities that could help address Saudi industrial interests, pointing to projects such as the MQ-25 refuelling uncrewed aircraft or the MQ-28 Ghost Bat, as well as the T-7A Red Hawk trainer that is still in development for the U.S. Air Force.

Boeing is starting to have conversations with potential buyers in the Middle East around the T-7, though export deals are likely to take time to materialise.

Combat ready: A Qatar Rafale in the sky. Above: The unveiling of the first UAE aircraft.
IMAGES: DASSAULT

DASSAULT ROLLS OUT FIRST EMIRATI RAFALE

Dassault Aviation presented the first United Arab Emirates (UAE) Rafale combat aircraft at Istres air force base (South France) at the end of January. This first Emirati F4 Rafale, will remain at Dassault Aviation's Flight Test Centre for flight test. **Anuradha Deenapanray Chappard** *reports.*

The first deliveries to the UAE Air Force and Air Defence are scheduled for end of 2026.

In the midst of geopolitical uncertainties and warfares, group CEO, Eric Trappier told *Arabian Aerospace* that Dassault Aviation is ready to support defence capabilities of France, Europe and other countries.

Despite supply chain challenges, which will persist for some time, Dassault could supply 30 more Rafale jets if needed. "We have a rich legacy, proven industrial expertise and a highly-skilled labour force, which gives us a good manoeuvring margin to increase the production rate of the Rafale," he said.

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"We plan to deliver three Rafales per month next year, and four as from 2028-29", announced the group's CEO. He added that he has "heard the call" of president Emmanuel Macron who has shown his willingness to "increase and accelerate Rafale orders" in view of the geopolitical context.

Dassault Aviation plans to ramp up production rapidly and is "studying the possibility" of delivering up to five Rafales per month as requested by the French president.

He also told *Arabian Aerospace* that the MENA region represents "an important market with interesting opportunities", including Saudi Arabia, a much-coveted kingdom with an ambitious development and investment plan.

"We are open to discussions. There are interesting prospects in the Middle East. We have established good commercial links with non-aligned countries like Egypt, our first Rafale export. Several commercial processes are currently under way, like with India for the supply of 26 Rafale Marine", added Trappier.

The UAE has ordered 80 Rafale jets in the largest-ever export contract for the French combat aircraft in 2021. They will be delivered in the F4 configuration, with additional weapon integrations, new modes for the aircraft's RBE2 active electronically scanned array (AESA) radar and the Spectra electronic warfare system. Once in service, the Rafale will replace the UAE Air Force's Mirage 2000-9 fleet.

Dassault's Rafale is powered by two M88 engines designed, developed and produced by Safran Aircraft Engines. The combat fighter has also enhanced its offensive capabilities with the integration of the 1,000 kg AASM, developed by Safran Electronics and Defence under the name Hammer.

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According to the French Group, the Rafale will "enhance its [the UAE's] influence as a major international power." Deliveries will run through to 2031.

The Rafale has made an interesting breakthrough a decade ago in other MENA countries with orders from Egypt (24 in 2015 and 31 in 2021) and Qatar (24 in 2015 and 12 in 2017).

There are still 220 Rafale jets to be delivered under the France and export orders (as of 31/12/2024). This production load gives Dassault about 10 years visibility.

The Rafale will no doubt touch new skies during Dubai Airshow 2025 set to redefine the boundaries of aviation and defence. ▲

THE FRENCH FIGHTER'S SUSTAINED EVOLUTION

Since the first feasibility study in the 80s, the first flight demonstration of Rafale A in 1986, the launch of the Rafale programme two years later and the first prototype in 1991, the French jet fighter has constantly evolved.

The Rafale has proven itself in combat on various battlefields like in Afghanistan, Libya, Mali, Iraq and Syria. Thus, gaining commercial momentum and notoriety.

Dassault Aviation is already working with parties concerned on the F5 standard as a medium-term plan (beyond 2030). Aimed at further strengthening the Rafale's capabilities in terms of collaborative combat, this standard will also integrate new armaments, particularly the ASN4G, the air-to-ground nuclear-armed, scramjet-powered, air-launched hypersonic cruise missile, to ensure the continuity of the French airborne dissuasion.

As announced in October 2024 by the Minarm, the Rafale F5 will be accompanied by a stealth combat drone that Dassault will develop, based on the nEUROn drone demonstrator. ▲

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Saudi Arabia's holistic development strategy is bearing fruit with King Abdulaziz International Airport (KAIA) in Jeddah reaching a historic milestone in 2024 with the highest annual operational figure in the history of Saudi airports. Passenger numbers are soaring, showcasing the sustained attractiveness of the kingdom. **Anuradha Deenapanray Chappard** *reports.*

Efficiency and growth: King Abdulaziz International Airport (KAIA)
IMAGE: MODERN TECHNOLOGY LABORATORY

KAIA'S E-GATEWAY TO A GLOBAL HUB

KAIA welcomed a record breaking 49.1 million travellers in 2024, marking a 14 per cent increase compared with 2023. Figures are still on the rise.

CEO of Jeddah Airports, Eng. Mazen Johar, attributes these "record-breaking numbers to the airport's accelerated operational growth, enabled by the unwavering support of the kingdom's leadership and the close oversight of the Ministry of Transport and Logistics".

Last February, KAIA launched 70 e-gates, modern technologies and AI for more secure and faster passenger processing across terminal one and executive office facilities. This will speed up travel for 175,000 passengers daily.

Jeddah Airport is the third Saudi airport to deploy the e-gate system, following its successful deployment at King Khalid International Airport in Riyadh and Neom Bay Airport. Last year, the first phase of e-gates were inaugurated at terminals three and four of King Khalid International Airport, thus establishing Riyadh Airport as the first Saudi airport to implement biometric e-passport scanners.

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According to KAIA's management, this landmark accomplishment highlights the airport's efficiency and growth, setting new benchmarks in passenger traffic. Adding that, it not only underscores the airport's importance, but also emphasises Saudi Arabia's growing status as a global hub for transportation and tourism.

The implementation of e-gates at KAIA aligns with Saudi Arabia's Vision 2030 which seeks to achieve a long-term goal of 150 million annual visitors by 2030.

Saudi Arabia welcomed more than 128 million travellers in 2024. Air connectivity also surged last year, recording a 16 per cent increase, with Saudi Arabia now linked to over 170 destinations worldwide. The Kingdom's Vision 2030 prioritises tourism and hospitality to diversify the economy.

▼ The transition to electric ground support equipment is also playing a crucial role in the airport's decarbonisation efforts with a total of 13 electric charging stations now in operation. ▲

This focus has led to significant investments in infrastructure, including airports. KAIA has thus benefited from expanded route networks by national and international carriers. New destinations and additional flights to existing routes have improved accessibility, driving passenger and flight growth.

At present, Jeddah Airport is connected to the RSAF air base and is the operational base of the kingdom's flag carrier. Most of the Middle Eastern airlines provide their services via this airport, including Flyadeal, Flynas, Qatar Airlines and more.

As infrastructure upgrades continue, the airport remains a vital gateway to the holy cities of Makkah and Madinah, as well as an increasing number of Red Sea destinations.

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Last March, KAIA also made a significant step in its journey to decarbonisation by joining the ACI Airport Carbon Accreditation programme at level two reduction. This achievement highlights the airport's commitment to effective carbon management in line with Saudi Arabia's Vision 2030 for a greener and more sustainable future.

Operated by Jeddah Airports Company, KAIA is actively reducing its scope one and scope two emissions by integrating innovative solutions to minimise its environmental impact through the deployment of solar energy, with 340 solar panels generating 150,000 Watts of clean energy to power environmentally-friendly facilities. In addition, the airport has embraced energy-efficient lighting systems, reducing overall energy consumption by up to 70 per cent.

The transition to electric ground support equipment is also playing a crucial role in the airport's decarbonisation efforts with a total of 13 electric charging stations now in operation, supporting the gradual replacement of fossil fuel-dependent airport vehicles.

These initiatives show the airport's commitment to reducing its carbon footprint, which now stands at approximately 73.5 kilotons of CO_2 annually. ▲

ALLIANCE TO LAUNCH AVIATION ACADEMY IN UAE

IAE and HADID have signed a memorandum of understanding (MOU) to jointly develop a advanced aviation academy in the UAE. Industry actors and partners welcome this initiative as aviation is gaining momentum year after year. The needs for highly-qualified manpower is a lever of growth.

Intercontinental Aviation Enterprise (IAE), a holding company specialised in aviation investment, management and training, and HADID International Services, a provider of international flight support and aviation services, will establish the Intercontinental Aviation Academy (IAA). It will provide world-class training for pilots, technicians, and aviation professionals.

The IAA will leverage IAE's expertise and HADID's global network and resources to meet the growing demand for aviation training in the region.

"This partnership will allow us to expand the initial project's operational capabilities and enhance education and training programs. Our goal is to set a new standard for aviation training – one that is efficient, responsive to the needs of regional and international students, and offers airlines and operators closer, high-performance training," said Wissam Mehyou, CEO and chairman of IAE.

Workforce need: There is a growing demand for aviation training in the region.
IMAGE: EMIRATES

"The IAA will not only support the Gulf's thriving aviation sector, but also establish new benchmarks in training excellence for pilots, technicians, and aviation professionals."

Key highlights of the collaboration include shared ownership, a focus on training programs designed to meet global aviation standards, and addressing the region's workforce needs.

The academy will provide comprehensive training, from entry level courses to airline transport pilot license (ATPL) programmes, catering to both individuals and businesses (B2B and B2C). The academy will leverage HADID's experience to provide corporate training and certification for international flight support, which it believes to be a first-of-its-kind offering.

The first Intercontinental Aviation Academy UAE expects to welcome its first students in the last quarter of 2025.

The UAE regulator GCAA is pulling out the stops to create a fast track to safe urban air mobility operations. **Alan Peaford** *looks at the latest developments.*

Corridors of certainty: UAE begins mapping flightpaths for air taxis and cargo drones.
IMAGE: AETOSWIRE

UAE races to turn eVTOL dream to reality

If there was ever any doubt about the intention of the Gulf states to establish clear leadership in the advanced air mobility sector and to transform urban transportation, then various events in Dubai and Abu Dhabi put them firmly to bed.

In February, the World Governments Summit 2025 saw government leaders come together in Dubai – just as 130km down the Sheikh Zayed highway at the Emirates Hotel in Abu Dhabi, some 180 state representatives were getting into deep debate about regulation, sustainability and innovation at the ICAO Global Implementation Support Symposium (GISS) hosted by the UAE regulator the GCAA.

On the lawn outside the summit, a single-seat eVTOL sat awaiting clearance to take to the skies for a quick demonstration flight.

The Lift Hexa did leave the ties of Earth and GCAA's assistant director general, strategy and international affairs, Yousuf Hashim Al Azizi said that the UAE is expected to be the first country to operate commercial eVOTLs. Testing will be carried out this year and commercial operations would begin by the end of 2026 or early 2027, he said.

Government representatives travelled between the two major events and the progress in the sector became clear when the UAE was seen to take a milestone step by announcing the start of air corridor mapping and revealed details of the regulatory framework development for piloted and autonomous air taxis and cargo drones.

Through a strategic partnership between the GCAA and the Advanced Technology Research Council (ATRC) entities – Technology Innovation Institute (TII) and ASPIRE – the UAE is on track to reshape the way people and goods move through urban spaces.

The aerial corridors and regulations are set to be defined within the next 20 months, demonstrating the UAE's unwavering commitment to deploying safe, advanced, sustainable transportation solutions that will not only ease congestion but also set a global benchmark for future urban mobility systems.

The plan is that the routes will connect key international airports and iconic places in the UAE, extending further to ensure seamless integration of piloted and autonomous air taxis and cargo drones across the nation's urban landscapes.

Saif Mohammed Al Suwaidi, GCAA's director general said: "Air corridor mapping for piloted and autonomous air taxis and drones is a crucial milestone that will enable the seamless implementation of advanced air mobility into the UAE's infrastructure."

Dr. Najwa Aaraj, CEO of TII, said: "This transformative collaboration with GCAA is reshaping the future of urban transportation. By advancing airspace management and integrating piloted and autonomous air taxis and cargo drones, we are not only enhancing urban connectivity but also driving sustainable and accessible mobility solutions that will benefit future generations."

> **We are not only enhancing urban connectivity but also driving sustainable and accessible mobility solutions that will benefit future generations.**
> **DR. NAJWA AARAJ**

Greater use of AI – a subject matter than was extensively covered during the GISS event – will be key to the success of the pioneer project.

Prof. Enrico Natalizio, chief researcher of the autonomous robotics research centre at TII, said: "At TII, we're developing advanced AI-powered control, vision and communication algorithms for autonomous systems that enable real-time decision-making for air taxis and drones."

The UAE has emerged as the international launch market for Joby and its main rival Archer. While Joby has selected Dubai as its first market, Archer is planning to launch initial services in the UAE capital, Abu Dhabi.

During the business aviation show, MEBAA, it was announced that Archer will be manufacturing its Midnight Aircraft in the emirate. Archer and the UAE regulator, the General Civil Aviation Authority (GCAA) held a week-long workshop in November to establish the necessary regulatory framework to certify the Midnight and approve commercial air taxi operations in the UAE.

The Abu Dhabi Investment Office (ADIO) is facilitating coordination among the Abu Dhabi entities in preparation for the launch of commercial operations – currently projected within the next year to 18 months.

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Oman's Duqm spaceport plans five launches in 2025

An artist's impression of a launch from the Etlaq spaceport in Oman.
IMAGE: ETLAQ.

Oman's new spaceport at Etlaq is aiming for five experimental launches by the end of this year. First announced in 2023, the spaceport in Duqm successfully launched its first experimental rocket in December 2024.

A 6.5-metre tall rocket, named Duqm-1, rose to an altitude of 140km above sea level, crossing the Karman line, recognised as the boundary of space, at speeds of up to 1,530 m/s.

Chief commercial officer, Julanda al Riyami, announced the company's plans at a press conference in February. "We're excited to unveil five missions this year, featuring international collaborations with partners from the UK, New Zealand, and Kuwait," al Riyami said.

"The goal is to establish a cadence, enabling multiple planned launches in parallel. This will help us achieve an ideal rate of 10, 20, or even 30+ launches yearly." He added that while some launches are designed to test landing systems, others will focus on other aspects, such as on-stage separation or fuel efficiency.

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The next rocket launch, called Unity-1, is expected this month and will be facilitated by UK-based launch company Advanced Propulsion Technologies. The second will be the launch of the Duqm-2 rocket in June, facilitated by New Zealand-based Stellar Kinetics, in partnership with Etlaq's parent company, NASCOM.

Al Riyami said a more complex launch, utilising different parameters and operational procedures, is scheduled for October for rocket Duqm-3.

The fourth launch, scheduled for November, is Kuwait Space Rocket's Ambition-3. The last launch of this year, currently scheduled for December, is once again for Duqm-3. Etlaq's full-scale commercial operations are scheduled for 2027.

Earlier, in a keynote address, Etlaq CEO, HH Sayyid Azzan bin Qais al Said, commented: "From now until 2027, our goal is to host as many launches as possible, within safety and feasibility limits, using multiple launch companies operating suborbital and experimental launch vehicles."

SYNTHETIC SATELLITE CAN PROVIDE THE MISSING LINK

IMAGE: DUBAI MEDIA OFFICE

The UAE's Mohammed Bin Rashid Space Centre (MBRSC) has launched Etihad-SAT, its first synthetic aperture radar (SAR) satellite.

The satellite was developed in partnership with South Korea's Satrec Initiative and was launched on March 15 aboard a SpaceX Falcon 9 rocket from the Vandenberg Air Force Base in California, USA.

MBRSC said the satellite will fill gaps in its fleet, which includes high-resolution optical imaging satellites like KhalifaSat and the recently-launched MBZ-Sat.

These are restricted to capturing photos in clear weather and can be impeded by cloud cover, haze and atmospheric interference.

A SAR satellite is capable of high-resolution remote sensing, independent of flight altitude and the weather.

Esri on the map with NSG

Geographic information system (GIS) software, location intelligence, and mapping specialist, Esri has signed a memorandum of understanding (MoU) with Saudi Arabia's Neo Space Group (NSG).

The aim is to advance the kingdom's geospatial sector as part of its Vision 2030.

An Esri spokesperson said: "As one of the fastest-growing and most innovative fields within the space technology ecosystem, geospatial solutions play a pivotal role in fostering economic diversification and supporting strategic national initiatives."

TÜRKIYE SETS SIGHTS ON SPACE HUB IN SOMALIA

Türkiye is set to announce a $2bn high-tech investment package, reinforcing its ambitions in space and advanced technology sectors.

Türkiye has a growing space programme, with the Turkish Space Agency (TUA) established in 2018, aiming for a strong international presence in space, including astronaut missions, satellite development, and potential Moon exploration.

The country also plans to build a spaceport in Somalia to conduct missile tests and long-range launches, according to Turkish president Recep Tayyip Erdogan.

The decision to build the facility in Somalia is attributed to its proximity to the equator, a location advantageous for rocket launches due to lower fuel requirements and better payload capacity. Somalia is one of three prime locations for equatorial launches, alongside Kazakhstan's Baikonur Cosmodrome and the launch complexes used by NASA and SpaceX in Florida, USA.

Earlier this year, Türkiye sent its first astronaut, Alper Gezeravcı, to the International Space Station, as a first step in the country's fledgling space activities.

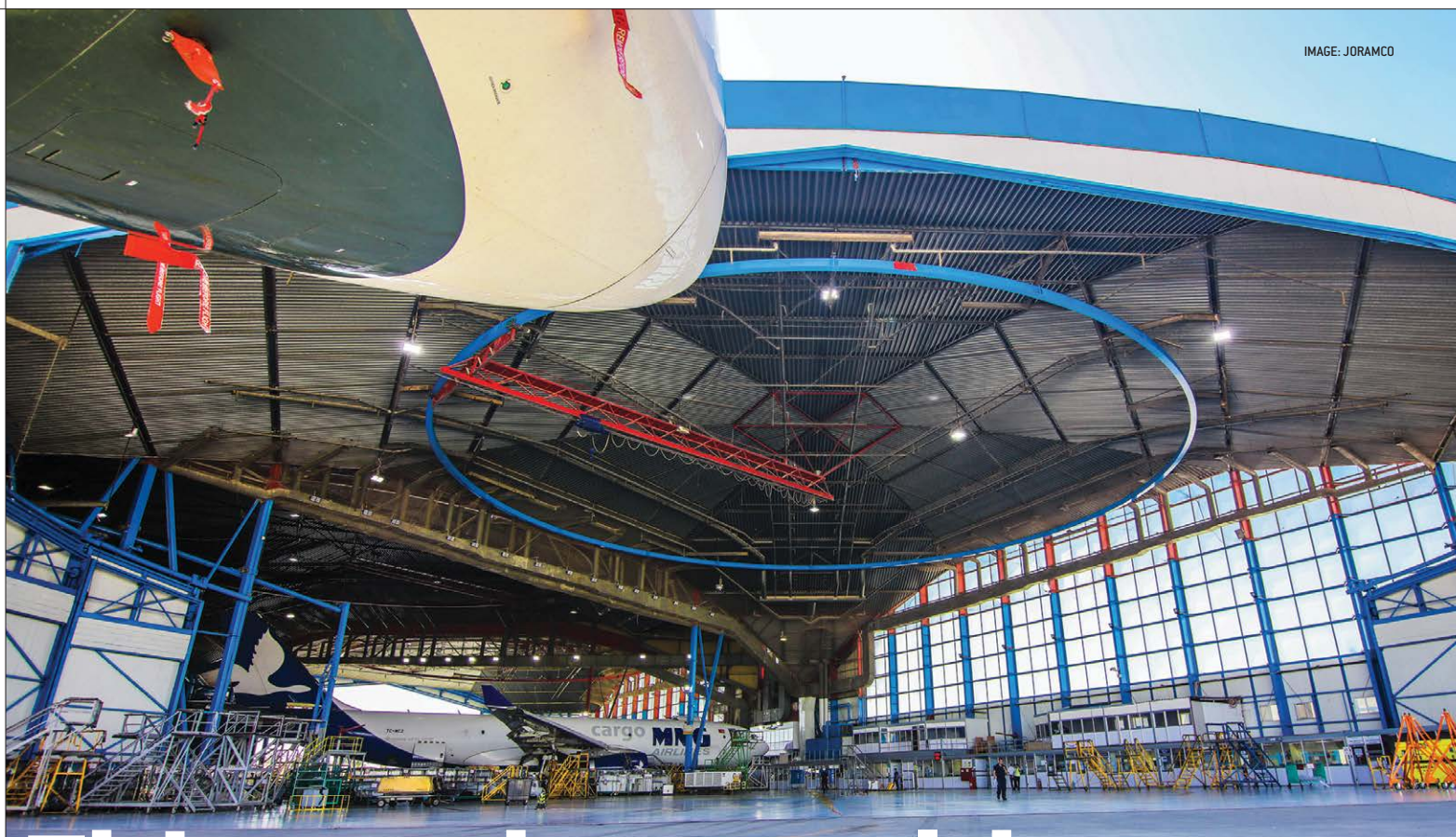
IMAGE: JORAMCO

This can be a golden age for Middle East MROs

The biggest edition yet of MRO Middle East highlighted the importance of the sector – as if anyone needed to be told – and the huge potential that the Middle East holds for companies already based in the region, plus newcomers.

Chuck Grieve *was there.*

Just how much potential? In the estimate of Daniel Williams, director of Flight Data Services for *Aviation Week*, the industry in the Middle East will be worth $156bn over the next 10 years.

Speaking in the Go Live! theatre, Williams said MRO growth in his forecast outstrips fleet growth, an indication of an ageing fleet, and "there's plenty of money to be made on an ageing fleet."

The show, and the co-located Aircraft Interiors Middle East (AIME), attracted 8,300 attendees over their two days in early February, up 11 per cent on 2024, previously the record. More than 100 countries were represented among visitors and the 268 exhibiting companies.

Organisations large and small used the show's platform for official signings and announcements.

Emirates signed a new agreement with Airbus for its Skywise Fleet Performance Plus (S.FP+) software aimed at improving the overall operational performance of its Airbus A350 and A380 fleets. Emirates said in a statement that its engineers "will be able to monitor real-time aircraft performance and health data, identify potential issues in flight, and determine maintenance actions during turnarounds."

Regional expansion plans were very much in the news. Among them, GE Aerospace announced a $10 million investment in its two MRO facilities in the Middle East, FL Technics announced plans to expand its UAE operations at both Dubai airports, and IER MRO Industries plans to break ground this summer on its new narrowbody commercial engine overhaul and testing facility in at Dubai South.

Abu Dhabi-based Etihad Engineering highlighted the two new hangars currently under construction with a third in the planning (see related story - Page 39). The MRO joined Airbus subsidiary Satair and Etihad Engineering to announce plans for an integrated material services (IMS) supply chain solution.

Announcements from leading independent MRO Joramco included an MOU with ATS Technic to support the latter's UAE operations, a new agreement with Royal Jordanian covering maintenance on its Embraer

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195-E2 aircraft, a material support agreement with global supplier PPG, and the acquisition of 8tree's DentCHECK inspection technology.

Joramco's Fraser Currie, speaking on the chief executives' panel, said he was "very happy to hear everyone talking about training and building hangars" but he also noted that "maximising what you have" is equally important. "Resource allocation and milestone planning [are] going to add significant efficiency to how we use existing resources," he said.

Locking in long-term deals was "so important", he said. "We now have 5-10 multiline deals with airlines. Those who come late will be disappointed."

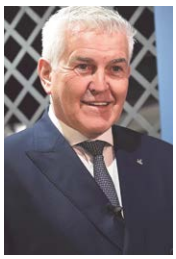
Currie knocked back the suggestion that MRO providers are delighted to have plentiful older aircraft to service. "Not me," he said. "I want younger aircraft. I want to be efficient."

With older aircraft, "you never know what you'll find when you open it up.

"Once the OEMs get back on track and we can retire some of these older aircraft, we'll have a much more sustainable MRO environment going forward."

On the same panel, Ziad Al-Hazmi of Lufthansa Technik Middle East said the industry faced many challenges. Supply chain issues were "not gong away in the near future", he said, and human resources problems were at a critical level.

"Nevertheless, I think challenges are good. There are more people here than a few years ago. Challenges are a reflection that the industry is picking up."



Fraser Currie: "I want younger aircraft."
IMAGE: BILLYPIX

A panel on the future of MRO in the Middle East brought insights from several leading organisations including Abu Dhabi engine specialist Sanad, whose operations director Marcel Gerth-Noritzsch noted that the Middle East "has the potential to become one of the world's leading aviation hubs, but achieving this requires strong collaboration among airlines, OEMs, MROs, and government regulators to shape a unified vision for the future.

"Strengthening local supply chains and investing in the next generation of aviation professionals will also be critical," he said. "By working with universities and schools to establish dedicated aviation programmes, we can build a sustainable pipeline of talent and reinforce the region's long-term position in the industry."

The elephant in the room at the 2025 show, or in this case not in the room, was Saudia Technic, whose absence reversed several years of prominence at the region's biggest dedicated MRO exhibition and conference. An explanation of sorts came two weeks after the Dubai event when the Kingdom used its own aviation industry forum in Jeddah to launch a new MRO initiative.

Elsewhere, exhibitor Ametek MRO noted a fundamental shift in airline and operator attitude towards third-party MRO repair services. "It is taking time," said Ismaël Fadili, vice-president Sales EMEA. "However, the persistent parts shortages caused by supply-chain issues, combined with the substantial growth of aviation across the Middle East, is fuelling demand for OEM-quality, third-party MRO services."

Tapping into independent MRO capabilities, especially those holding authorised repair centre (ARC) agreements with OEMs, can help operators navigate high costs while offsetting the shortage of skilled labour.

Under a landing gear service agreement recently signed with Liebherr-Aerospace, Ametek has added the Embraer E190 platform to its portfolio of MRO services across the EMEA region.

On the exhibition floor, Rolls-Royce joined forces with Waygate Technologies to highlight their intelligent borescope method, technology that the partners say can transform inspection of high-pressure turbine (HPT) blades and management of the data it generates.

Elise Hresko, Engineering for Services partnership manager, said inspecting blades has traditionally been labour-intensive and time-consuming and generates inconsistent data that can lead to engines being take off the wing for maintenance before it's necessary.

The intelligent borescope method combines the use of the highest quality equipment, overlays that standardise images, and AI to develop apps that aid the sentencing of observations, giving

Park view: The new industrial city, to be located on a dedicated 1.2 million sqm site at Jeddah's Modon Oasis, will be called Aero Park I.
IMAGE: CHAPMAN TAYLOR

JEDDAH AIRPORT CITY HUB FOR SAUDI MRO

Saudi Arabia used its own aviation industry forum two weeks after MRO Middle East to launch a new MRO initiative, its first industrial city dedicated to aircraft manufacturing and maintenance.

Enterprise Saudi said the new industrial city, to be located on a dedicated 1.2 million sqm site at Jeddah's Modon Oasis, will be called Aero Park I. No details of the size of the investment or development timeline were given.

In addition, the government reinforced its Vision 2030 commitment to developing the sector by issuing what are reportedly its first industrial licences for MRO, uncrewed aerial vehicles (UAVs), navigation systems, and electronic systems.

A slew of MoUs aimed at localising industrial processes in the aircraft MRO industry were also signed. They cover titanium processing, used part recycling, developing other MRO centres in the Kingdom, and support for military aircraft.

Saudia Technic and Middle East Propulsion Company (MEPC) received MRO licences for services to include jet and drone maintenance and repair, navigational and electric systems servicing, and all-around aircraft overhaul. ▲

operators a path to quicker insights, increased time on wing from optimised maintenance decisions, and more certainty in immediate and longer-term fleet planning.

For visitors to the co-located AIME exhibition, a Go Live! theatre session on next-gen cabin concepts highlighted how sustainability is driving innovation in aircraft interior design, leading to the development of cutting-edge cabin and seating solutions.

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Dr. Davinder Surah, an aviation and aerospace specialist at Khalifa Bin Zayed Air College in Abu Dhabi, said: "Circular aviation plays a crucial role in maximising the value of aircraft parts throughout their lifecycle, ensuring efficiency both during and after use. Beyond sustainability, it also has a significant cost impact, influencing the development of new materials and driving more efficient resource utilisation across the industry."

On the show floor, a French contingent, organised by Business France in partnership with Air France Industries KLM Engineering and Maintenance (AFI KLM E&M), brought products and services from 20 French companies to the fore: companies such as GMI Aero, which offers a range of equipment and services for composite repair as well as manufacture of aircraft structures, and Imaginair, a cabin equipment OEM providing design-to-manufacturing modular solutions.

Toulouse-based Donecle was on hand to promote automated drone inspection which the company says can execute inspections of aircraft, landing gear and engines up to 10 times faster than other methods.

Domestic and global demand for its services are driving expansion at Abu Dhabi's Etihad Engineering, whose chief executive, Daniel Hoffmann, said the MRO provider is adding significant hangar capacity in Abu Dhabi as part of a broader growth strategy that is forecast to double revenues by 2030. **Chuck Grieve** *reports.*

ETIHAD ENGINEERING EXPANDS ABU DHABI HANGAR CAPACITY

Speaking on the chief executives' panel at MRO Middle East, Hoffmann said it's no secret that the aviation industry is being "challenged" by delays in new aircraft deliveries, which means working-life extensions to existing fleets and more MRO hours and more inductions.

While the Middle East is well-positioned to play a greater role in the global MRO landscape, "we are seeing significant investments in new facilities, including large-scale projects in the UAE and Saudi Arabia," he said.

Etihad Engineering is currently building two new hangars and has plans for another. Hoffmann said: "It's not just base maintenance demands that we are preparing for. We also want to become OEM solution centres for components.

"From the Middle East, we are only one flight from all continents, so we are partnering with a lot of OEMs to set up a multi-OEM repair shop."

He added that the Abu Dhabi-based MRO's Part 21J design approval certification offers "good growth potential" as a one-stop shop for minor or major cabin modifications. "We are in talks with many OEMs and MROs."

Expanding on these points in an interview with *Aviation Week*, Hoffmann said Etihad Engineering's expansion in Abu Dhabi started last year with the purchase of an Airbus A380-capable hangar from Mubadala, the state-owned investment firm, which has since been leased to Etihad Airways for line maintenance. It will be incorporated into the MRO provider's capacity in 2027.

Meanwhile, work on the new Hangar 7, earmarked for the Boeing 777-300ER passenger-to-freighter (P2F) conversion work planned in partnership with Israel Aerospace Industries (IAI) since 2021, was expected to be operational by May.

Another hangar, named 6D, will add to existing A380 hangar capacity by July. Mooted is a further hangar for up to five widebodies and, squeezed into the widebody gaps, "another three to four narrowbodies as well", Hoffmann said.

This project, currently at the design stage, would open in 2028, with construction starting in 2026.

Continued on Page 40

Daniel Hoffman: "From the Middle East, we are only one flight from all continents, so we are partnering with a lot of OEMs to set up a multi-OEM repair shop."
IMAGE: ETIHAD ENGINEERING

Big business: Strong demand makes 12-year checks on A380s a stable and reliable business.
IMAGE: ETIHAD ENGINEERING

CONTINUED FROM PAGE 39

The company's Airbus A380 capabilities have been busy recently with Etihad's reactivation of its fleet, maintenance on examples from Qantas, with further A380 work pending with an unnamed European operator. The strong A380 demand had prompted Etihad Engineering to reconfigure existing lines to accommodate the extra work and a new line with capacity for two 12-year checks in parallel would be added. Each 12-year check takes about 100,000 man-hours over 100 days, making this "a very stable and reliable business".

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Etihad Airways accounts for about 30 per cent of Etihad Engineering's work. Although the airline is no longer the MRO's parent company, its plans to add 80 aircraft to its fleet of about 100 aircraft by 2032 put pressure on Hoffmann's company to keep pace.

"At the moment, we have two to three lines booked for Etihad Airways. In the near future, we expect this to increase to six and in certain locations maybe even up to eight parallel lines," he said, referring to 2026-27.

"We'll have to grow for the third-party market in the same way as we do for Etihad work," he added. The MRO gained several new customers last year, mainly European carriers, but the company sees strength in a geographically diverse customer portfolio. The Middle East, South America and Asia-Pacific are strong growth regions, said Hoffmann, as is the subcontinent – Air India became a customer last year.

The company is targeting a jump in man-hours from 1.78 million at the end of last year to around three million over the next five years. For this year, with the two new hangars scheduled to come on-stream, the aim is to surpass two million hours.

To staff its ambitions, Etihad Engineering will need up to a 50 per cent increase in its 2,200-strong workforce, which Hoffmann anticipates will far exceed 3,000 by 2028. A near-term requirement is another 150-200 qualified staff before the hangar leased to Etihad Airways is incorporated into the engineering business's capacity in 2026, putting pressure on the company's Part 147 training school.

Chief executive since 2023, Hoffmann joined Etihad Engineering from Lufthansa Technik, were he had held senior roles in Germany, Bulgaria and the Philippines. He has guided the company through changes in corporate structure that saw Etihad Engineering come under the Abu Dhabi Aviation brand, part of a restructuring of Abu Dhabi's industrial portfolio. The deal was completed in 2024.

Hoffmann said the global supply chain is still facing significant disruptions despite relative improvements over the past year. "Waiting times for components and for cabin parts are still slowing us down," he said.

Long-term, Hoffmann sees opportunities to improve efficiency and therefore turnaround times. He said there is potential for a 10 per cent increase in work density in existing infrastructure through optimising work patterns, reallocation of staff as needed, and increasing flexibility to react to changing situations. Process improvements were being tested and would be rolled out incrementally.

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Despite its broad airframe capability portfolio, Hoffmann said Etihad Engineering is in discussions on Airbus A330neo base maintenance. However, the company's most substantial investment will be in its component repair portfolio.

"The component market side has been, so far, mainly driven by the needs of the Etihad Airways fleet. But we want to grow way beyond that."

Etihad Engineering's strategy will be to build on its OEM partnerships, such as those with Moog on actuator testing and repairs, Acme on battery overhauls, and L3Harris on component repairs, to create a multiple-OEM component solution shop in the Middle East.

Etihad Engineering may also look at further MRO opportunities outside Abu Dhabi, with India among the countries it is studying. It was also negotiating with Argentina-based Fabrica Argentina de Aviones (Fadea), which has undertaken maintenance checks in South America on behalf of Etihad Engineering since 2019, about a joint venture. ▲

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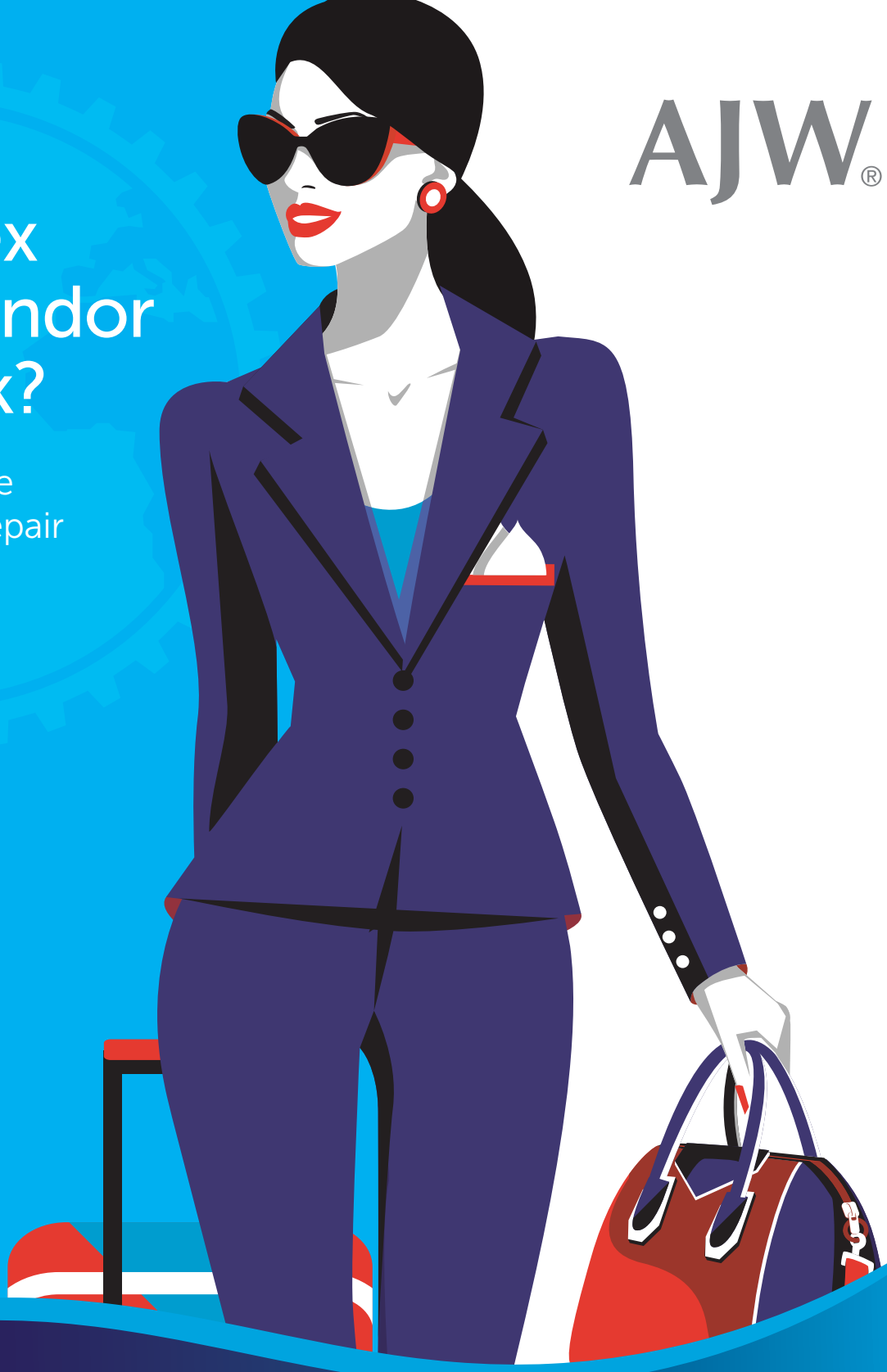

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Abu Dhabi hosted the Global Implementation Support Symposium (GISS 2025) and the Global Sustainable Aviation Marketplace (GSAM 2025) in February with the UAE reaffirming its leadership in driving excellence, innovation, and sustainability in aviation.
Chloe Greenbank *and* **Ella Nethersole** *report on some of the highlights.*

HEXA flight paves the way for a new era in UAE's air mobility

LIFT Aircraft Middle East and Advanced Mobility Hub made a milestone in the pursuit of sustainable air transport during GISS.

During the event, a groundbreaking live demonstration of the HEXA electric vertical take-off and landing (eVTOL) aircraft, alongside the launch of LIFT Middle East, marked a new chapter in the region's air mobility development.

Conducted under the supervision of the Smart Autonomous Systems Council (SASC), the UAE General Civil Aviation Authority (GCAA), the Integrated Transport Centre (Abu Dhabi Mobility) and the Abu Dhabi Investment Office (ADIO), the demonstration flight saw the HEXA light sport aircraft take off from the grounds of the Emirates Palace Mandarin Oriental in Abu Dhabi before flying over the beach and returning to land.

Lasting around five minutes, the flight captivated the audience, which included government ministers from around the world, who were participating in ICAO's GISS.

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The flight underscored the growing importance of integrating advanced air mobility solutions into the region's transportation infrastructure.

It also showcased HEXA's state-of-the-art features, including a three-axis joystick, three-axis autopilot system and an all-electric propulsion mechanism, all designed to revolutionise personal air mobility through safe, easy-to-use, emission-free flight.

As a leader in the global aviation industry, Advanced Mobility Hub, a member of Multi Level Group (MLG), in strategic partnership with LIFT Aircraft Middle East, also made a ground-breaking step in the future of air mobility with the launch of LIFT Middle East in Abu Dhabi.

The initiative aims to assemble and manufacture light sports aircraft in the UAE to the Middle East, making the region a global hub for advanced aerospace technology. ▲

THE SUN SHINES ON SUSTAINABLE AVIATION TOGETHER, SAYS BOEING

In the Middle East, Boeing said during GISS it sees 'huge benefits' in using solar energy to produce sustainable aviation fuel (SAF) through a process called power-to-liquid (PtL).

"The Middle East has a 'unique' advantage with abundant sunlight, so through solar and through renewable electricity generation, there is a pathway called power-to-liquid SAF, and that's where you can take that renewable electricity, C02, water and create liquid fuels, liquid hydrocarbons out of that," explained Ryan Faucett, vice president of environmental sustainability at the Boeing Company.

"What we see here in the Middle East is vast potential. In fact, a couple of years ago, we partnered to create a roadmap that articulated more than 70 per cent of the SAF needs, fuel needs, in the UAE can be met through SAF by 2050 just through this liquid pathway.

"So, now that we understand that, we can start the country down the path of creating its own fuel."

Faucett outlined the 'five pillars' crucial overall to sustainable skies.

"These are fleet renewal, operational efficiency, ground renewable energy, advanced technologies, and carbon management," he explained.

Ryan Faucett: "The Middle East has a 'unique' advantage." IMAGE: BILLYPIX

Faucett said the key message from Boeing during GISS is 'Sustainable Aviation Together.'

"That means, it's not one factor within the industry that's going to be able to make progress, we all have to do our part," he said. "So, Boeing as an OEM is going to do our part by making the most fuel-efficient aircraft we can.

"We will also do our part by advancing and championing SAF for the industry, and by convening stakeholders around the 'five pillars', so that we can make progress together." ▲

ICAO PRESIDENT: NO COUNTRY LEFT BEHIND

Salvatore Sciacchitano, president of ICAO, said that UAE's general civil aviation is leading the aviation sector towards net zero emissions – emphasising sustainability as a transformative effort.

"The International Civil Aviation Organization (ICAO) is strengthening its support to member states, particularly through the 'No Country Left Behind' initiative, which is a strategic goal," said Sciacchitano.

Salvatore Sciacchitano: ICAO is strengthening its support. IMAGE: BILLYPIX

"ICAO has received more than $25 million in technical assistance funding, enabling more precise support and the development of targeted products and services."

Sciacchitano said the organisation is also focusing on emerging technologies, such as artificial intelligence (AI), and sustainable aviation fuels to achieve net zero emissions by 2050.

"The Global Sustainable Marketplace, a partnership in the UAE, aims to showcase innovative pathways for decarbonisation and sustainable aviation," he said. ▲

A groundbreaking live demonstration of the HEXA eVTOL aircraft, alongside the launch of LIFT Middle East, marked a new chapter in the region's air mobility development, during GISS.
IMAGE: BILLYPIX

UAE STRENGTHENS LEAD IN SUSTAINABLE INNOVATION

The UAE reaffirmed its position as a global leader in aviation and sustainability, playing a key role in shaping international climate policies and advancing sustainable aviation fuels (SAF).

Maryam Al Balooshi, the UAE's state lead negotiator for climate change at the GCAA, emphasised the nation's long-standing commitment to sustainability in aviation.

"Aviation is a major contributor to global GDP, and the UAE has been at the forefront of innovation in the sector. From the early adoption of aviation climate resolutions in 2010 to influencing international policy today, we continue to be a hub for progress," she said.

The UAE has been actively engaged in SAF discussions since 2009, recognising its importance for decarbonising the aviation industry. Al Balooshi highlighted the nation's strategic approach to transitioning toward SAF, initially advocating for low carbon aviation fuel (LCAF) alongside Saudi Arabia. This approach ensures a gradual and feasible shift away from conventional jet fuel.

"If we want to change the game, it's not just about producing a new energy source. We need major oil sectors to transition with us, moving from jet fuel to LCAF, and eventually to SAF using existing refineries," she explained.

A key milestone in the UAE's aviation sustainability agenda was the endorsement of the Conference on Aviation and Alternative Fuels (CAAF/3) framework in 2023. The framework includes four pillars – policy, implementation, regulation, and finance.

Al Balooshi emphasised that finance remains the most critical enabler. "No matter how ambitious our policies and regulations are, without proper financing, we won't achieve our net-zero emissions target of five per cent by 2030.

"Investments are essential to scale SAF production at pace and integrate cleaner energy into the aviation industry," she said.

ICAO'S FINVEST HUB DRIVES SUSTAINABLE AVIATION INVESTMENT

The ICAO Finvest Hub is a global platform designed to connect aviation stakeholders with investors, financial institutions, and policymakers to accelerate sustainable aviation development.

Launched by the International Civil Aviation Organization (ICAO) in 2024, the hub facilitates funding and investment for innovative aviation projects, in areas such as infrastructure, sustainability, digitalisation, and emerging technologies.

Juan Carlos Salazar: "The Finvest Hub will help drive financial resilience and long-term innovation across the industry."
IMAGE: BILLYPIX

A key priority of the Finvest Hub is supporting ICAO's sustainability goals, including financing green airport projects, sustainable aviation fuels (SAF) and carbon reduction initiatives.

It also promotes the adoption of cutting-edge solutions, such as AI-driven air traffic management, urban air mobility and next-generation aircraft technologies.

"By bridging the gap between aviation projects and global investors, the Finvest Hub will help drive financial resilience and long-term innovation across the industry," said Juan Carlos Salazar, ICAO's secretary general, during this year's Global Implementation Support Symposium.

At the end of last year, ICAO signed an MoU with the International Renewable Energy Agency (IRENA) to enable the exploration of pathways to operationalise the Finvest Hub by facilitating the identification of financial resources for scaling up SAF, lower-carbon aviation fuels (LCAF) and other clean energy solutions.

"Blended finance, combining public and private investments is crucial," said Salazar, as he emphasised the role of multilateral and regional development banks in supporting sustainable projects.

He also referenced platforms such as the Best Hub for investment matchmaking and the debut of the Global Sustainable Aviation Marketplace (GSAM) at this year's GISS.

Shafiul Syed

Marcelle Nethersole *talks to the chief executive officer of RoyalJet.*

What can you tell me about RoyalJet?

The RoyalJet LLC is an Abu Dhabi-owned and operated group of companies which leads the global premium private aviation sector and is chaired by His Highness Sheikh Mohammed Bin Hamad Bin Tahnoon Al Nahyan.

With our headquarters in Abu Dhabi, RoyalJet operates from its fixed based operations (FBO)/VIP terminal at Abu Dhabi International Airport. We were born 21 years ago, out of Abu Dhabi's Royal Fleet. We've evolved a lot over these years from being totally dedicated to serving the royal family to now serving all kinds of commercial customers.

How is RoyalJet progressing with its ACJ orders?

RoyalJet announced during the MEBAA executive aviation show in December 2024, that it was acquiring up to nine Airbus Corporate Jets (ACJ) ACJ320neos.

We are in a unique place as we have slots secured for the first green aircraft by Q2 2026, which means another 18 months or so before we get the first aircraft interior done.

We are actually really lucky to have those slots – if you went to Airbus now, you would be looking at a slot six or seven years ahead – unless you get cancellations.

However, for now we are still very much a Boeing Business Jet (BBJ) operator. We have up to nine BBJs with the latest one, RJK, being very interesting with a lot of uptake. It can fly in four different configurations – 32 seats, 42 seats, 58 seats or 92 seats. It can also fly in a cargo configuration.

How do you see executive aviation trends in the Middle East?

Investment in new aircraft is certainly a vote of confidence in the future of the executive aviation industry in the Gulf region.

There are challenges though, what we call 'grey market operators' out there, which don't have the same standards, so they can have lower costs.

A great example is how we at RoyalJet, just like Emirates, Etihad and flydubai, send our pilots to the simulator twice a year for two days at a time. Some of those grey market operators don't do that level of training.

They will take off, do a fly-by and then land, whereas with us, it's two days of training in which we will disorient the pilots so that they can train in recovering the aircraft. That's how important safety is to us. But this comes at a price, so we can't compete with the guy who doesn't do that training.

Why do customers choose RoyalJet?

RoyalJet is a royal service, so we serve VVIP customers, including the extended royal family. It is a good bit of our business, and we have built our fleet around that.

Due to the nature of our customers, we can fly to places other people can't get to and the Middle East is a great leverage for such destinations. Of course, we pride ourselves on our very high standard for quality and safety.

We also offer a special personalised service, so we will do whatever the customer wants. For example, one customer wanted a German doner kebab, which we supplied.

What does a typical day hold for you in your role?

I tend to start the day at 8am.

Every morning there's a meeting that the ops control centre holds and that gives me a snapshot of the day and the next few days.

Then there'll be a series of meetings where I'll probably do town halls with the staff, then there will be internal meetings and external meetings where we're talking about strategy and forward-looking direction.

There'll be safety meetings, and there will be plenty of meetings as we're driving direction and strategy. We are also looking at focusing on digital transformation, aiming to enhance operations through AI.

I leave the office around 6pm, which is when I get then catch up on email and all the other traffic that's gone on.

> "Due to the nature of our customers, we can fly to places other people can't get to and the Middle East is a great leverage for such destinations."

IMAGE: ROYALJET

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