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

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FOR GROWTH

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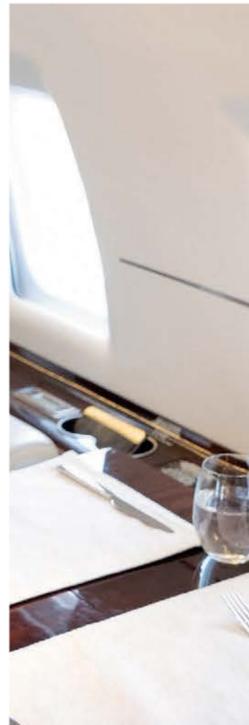
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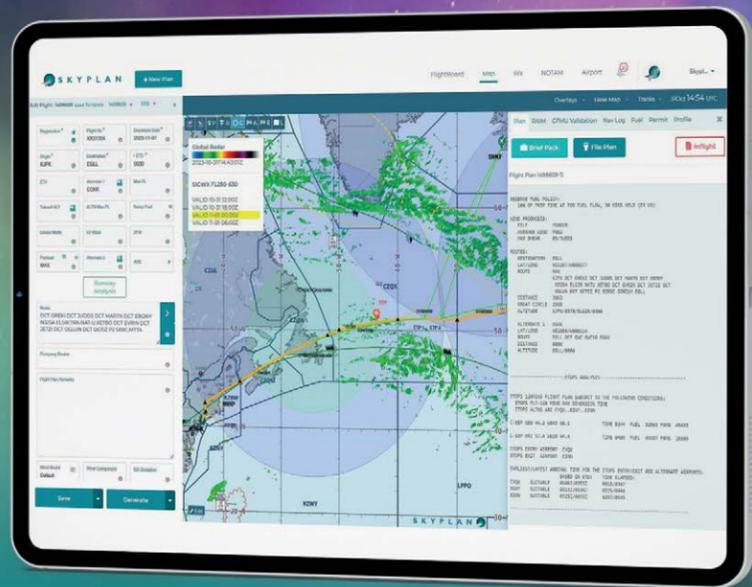
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WHY 2025 IS A PIVOTAL YEAR FOR THE ARAB WORLD

With a new year brings new resolutions, to-do lists that weren't ticked off in the previous one and a raft of new challenges that make these lists redundant anyway. As we gaze into 2025 the feeling that this is a pivotal year for the commercial and defence sides of our industry is inescapable.

Firstly, the geo-political picture for the region, so critically strained by the Israel-Gaza war, has changed. After 15 months of fighting the ceasefire and hostage release deal agreed in mid-January gives rise for very cautious optimism of more peaceful times ahead, even if the conflict itself is not resolved.

Despite this positive news, for the defence sector across the region, and for the various military partners of the Arab world, a high state of tension remains.

The focus on advancing existing and forging fresh defence relationships will continue, as will a stronger than ever drive for weapon systems that feature unmanned aerial vehicles. The International Defence Exhibition and Conference in Abu Dhabi will be a proof point of progress on both fronts.

IDEX in mid-February and the Dubai Airshow in November, at the tail end of 2025, will demonstrate how far the Middle East, and especially the ambitious defence industrial complexes of the UAE and Saudi Arabia, have advanced on developing indigenous manufacturing capability and technological expertise. Expect more announcements this year.

The Israel-Gaza ceasefire, plus the November announcement of a ceasefire to end 13 months of fighting in Lebanon, is good news for the region's carriers and those serving the Middle East.

Cancelled services can be restored and restricted routings removed. It will not be an overnight rebound for carriers such as Royal Jordanian and Middle East Airlines, but it will be a huge relief to get back to normal business. Both had continued to fly albeit on tortuous routings.

This timing is welcome in a year where capacity growth of the incumbents is slated to accelerate, and new players intend to enter the market.

The competitive environment will intensify, with Emirates and Qatar Airways facing stronger challenges from those around them. To the west is Turkish Airlines, to the east are Air India and Indigo. Etihad too is on another growth spurt.

The much-advertised arrival of Saudi Arabia's new flag carrier – Riyadh Air – will finally take place this year. It will not make a dent in anybody's market share for a few years, but its appearance will garner huge attention and is a significant signal for what lies ahead from the Kingdom of Saudi Arabia across all aviation ecosystems.

Whoever wins, the leadership shown by the Middle East's airlines will continue to drive the global air transport industry.

The strongest brake on growth aspirations will continue to be access to new aircraft deliveries and access to maintenance or repair to ensure current types can remain in service. And the situation is unlikely to improve significantly in 2025.

From IDEX to the Dubai Airshow, with the Paris Air Show and many more events in between, the *Arabian Aerospace* editors and correspondents will be there to report on the twists and turns of 2025.

Mark Pilling, Managing Editor

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TIM AEROSPACE MRO DWC: SETTING A NEW BENCHMARK IN AVIATION MAINTENANCE

In the heart of Dubai's expanding aviation hub at Al Maktoum International Airport (DWC), TIM Aerospace is poised to revolutionize the Maintenance, Repair, and Overhaul (MRO) industry. As a privately owned, independent third-party commercial MRO, TIM Aerospace specializes in servicing Boeing and Airbus aircraft, offering unparalleled flexibility and efficiency in the region's aviation sector.

A STATE-OF-THE-ART FACILITY

Currently under construction, TIM Aerospace's cutting-edge hangar is an engineering marvel. Spanning an impressive **145 meters in width and 125 meters in depth**, the facility features a **single-span design with four overhead integral cranes**, providing 100% overhead coverage. The **full-width sliding doors**, reaching a height of **21 meters**, allow seamless aircraft movement, ensuring operational efficiency. The **hangar floor area covers 18,000 square meters**, supplemented by an expansive workshop space to accommodate a diverse range of maintenance activities.

The design of this large open-span hangar allows multiple aircraft configurations to be serviced simultaneously, ensuring a high level of operational flexibility to meet the dynamic needs of the industry. The facility is scheduled for handover in **Q3 2025**, with full operational readiness expected by **Q4 2025**.

A COMPREHENSIVE MAINTENANCE HUB

The ground floor of the hangar is seamlessly connected to vital support areas through **four large fireproof roller doors**, providing direct access to **warehouses, bulk storage, and specialized workshops**. Rising above the ground floor, the facility boasts **two additional office levels spanning 100 meters**, accessible via four personnel lifts. These offices will house all supporting functions, including a **dedicated customer representative area with modern amenities**.

TIM Aerospace's hangar is designed to accommodate **five widebody aircraft simultaneously** or a combination of widebody and narrowbody aircraft. The company's core focus is on **base maintenance up to D-check level**, as well as interior and structural modifications, end-of-lease

inspections, entry-into-service checks, and specialized workshop support, including **paint, non-destructive testing (NDT), structures, composites, and interiors**.

INNOVATION-DRIVEN OPERATIONS

Embracing the latest technology, TIM Aerospace is committed to delivering the highest standards in **quality compliance, safety, and operational efficiency**. Some of the key innovations include:

- **RFID-enabled automated tool cribs and automated tool control toolboxes** for enhanced tool accountability.
- **A fully paperless environment**, where all planning, execution, and documentation processes are digitized. Digital task cards will replace traditional paperwork, and staff will utilize unique digital stamps to sign off on completed tasks.
- **Advanced MRO software solutions** such as **EmpowerMX and IFS**, ensuring seamless project coordination, materials management, and real-time tracking of maintenance activities.
- **A Strategic Location with a Competitive Edge**

As the first truly independent large-scale commercial MRO facility at DWC, TIM Aerospace is uniquely positioned to address the growing **demand for base maintenance in the region**. The startup workforce is projected to begin with **160 employees**, scaling up to **500 personnel** as operations mature. The facility will initially operate under **EASA Part 145 approval**, with additional regulatory approvals added in response to customer needs.

With the **Middle East aviation market experiencing unprecedented growth**, TIM Aerospace is set to play a crucial role in alleviating **MRO capacity shortages**. Its strategic location, coupled with a cutting-edge facility and commitment to technological excellence, ensures a long and sustainable future, supporting the region's thriving airline industry.

TIM Aerospace



Etihad to develop educational initiative in Nairobi

Etihad Airways plans for a significant community development initiative in Nairobi, coinciding with the launch of its new Abu Dhabi-Nairobi service.

The cornerstone of this initiative is the establishment of the Etihad Airways Community Development Centre, focusing on education and women's empowerment through a strategic partnership with the Amahoro Coalition. The centre will support people from marginalised communities and forcibly-displaced communities.

The centre piece of the development will be a boarding school serving children from nursery to grade six.

"This Community Development Centre embodies our commitment to creating lasting positive change in the communities we serve," said Dr. Nadia Bastaki, chief people and corporate affairs officer at Etihad Airways. "By providing comprehensive educational facilities and vocational training, we're giving flight to ambition and creating opportunities for the next generation to thrive."

The development will also include a dedicated vocational training centre for young women, offering programmes designed to enhance employability and entrepreneurial skills.

ULD digitalisation

Qatar Airways Cargo and Unilode Aviation Solutions have entered a partnership for the digitalisation of the airline's fleet of over 42,000 unit load devices (ULD).

The partnership represents the largest ULD digitalisation programme undertaken by an airline. Qatar Airways Cargo will leverage Unilode's advanced ULD digitalisation capabilities to gain data-driven insights and real-time visibility into ULD locations, sensory data, and asset utilisation rates.

Through Unilode's digital technologies Qatar Airways Cargo will continue to strengthen its position to be at the forefront when it comes to

streamlining operations, optimising resources, increasing revenue opportunities, and boosting performance.

Aviation academy

International Aviation Enterprise (IAE) and HADID International Services (HADID), have signed an MoU to jointly develop a state-of-the-art aviation academy in the UAE.

"This partnership will allow us to expand the initial project's operational capabilities and enhance education and training programmes. 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 of IAE.

On-time

Saudia has emerged as the new leader among global industry peers, ranking first in on-time performance (OTP) with an on-time arrival rate of 89.85 per cent.

This comes after operating more than 16,300 flights and marks the third time, following its first-place rankings in June and July of 2024.

Flyadeal achieved an OTP of 90.48 per cent, securing the second position in the global low-cost airline category for the second consecutive month.



DAE signs agreement to acquire Nordic Aviation Capital

Dubai Aerospace Enterprise (DAE) has signed an agreement to acquire 100 per cent of the Nordic Aviation Capital group of companies (NAC), an aircraft leasing company.

As of September 2024, NAC's fleet was comprised of 252 owned and committed assets on lease to approximately 60 airline customers in approximately 40 countries.

On a pro-forma basis, DAE Capital's fleet will comprise of approximately 750 owned, managed and committed aircraft with a total value of approximately US\$22 billion on lease to approximately 170 airline customers in approximately 70 countries.

Firoz Tarapore, chief executive officer of DAE, said: "This transaction will allow us to provide more cost-effective solutions to a larger group of customers."

The development will also include a dedicated vocational training centre for young women, offering programmes designed to enhance employability and entrepreneurial skills.
IMAGE: ETIHAD AIRWAYS

Serving Syria

Royal Jordanian Airlines resumed flights to Damascus, Syria, from January 31, 2025. The short flight time of 25 minutes between Amman and Damascus is the shortest route from Damascus by air.

Samer Majali, CEO of Royal Jordanian Airlines, said: "Resuming our new flights to Damascus emphasises our commitment to be one of the first airlines to offer international connectivity to the Syrian market. Amman has long served as the gateway to Syria, enabling travellers from the U.S. and Europe to connect to the region."

Emirates graduates

Emirates Aviation University (EAU) has honoured 288 students who can now officially enter the world of aerospace and aviation.

Held at the EAU campus in Dubai, the graduation ceremony in January showcased the broad range of nationalities and disciplines, which included postgraduate and undergraduate programmes in aviation management, aeronautical and aerospace engineering, aviation security, software engineering, and aircraft maintenance engineering.

Dubai drones

Dubai Civil Aviation Authority (DCAA) has signed an MoU with Keeta Drones to focus on the collaboration in drone-based delivery.

The collaboration encompasses evaluating and approving drone operation zones, focusing on three core areas: assessing infrastructure requirements for designated drone zones, reviewing airspace requirements for these



IMAGE: EXECUJET MRO SERVICES MIDDLE EAST

EXECUJET MRO APPROVED FOR GLOBAL 7500S

EASA has certified ExecuJet MRO Services Middle East's facility at Dubai's Al-Maktoum International Airport (DWC) to perform line and base maintenance on Bombardier Global 7500 aircraft. "We are excited to extend our support to the Bombardier Global 7500 with EASA certification for our state-of-the-art

DWC facility," said Nick Weber, regional VP for the Middle East at ExecuJet MRO Services. "With years of experience maintaining the Challenger and Global series, our team is committed to delivering the highest standards of quality, safety and craftsmanship."

zones, and evaluating safety and security needs for effective and safe drone delivery operations across Dubai.

G700 deliveries

Gulfstream Aerospace has delivered two additional Gulfstream G700 aircraft to the growing Qatar Executive fleet.

The two new aircraft, both delivered using a blend of sustainable aviation fuel (SAF), increases the total number of G700 aircraft in the Qatar Executive fleet to six with an additional four scheduled.

"The unprecedented speed with which the team has been able to deliver this remarkable aircraft is a true testament to the quality and maturity of the G700

programme," said Mark Burns, president, Gulfstream.

Preclearance Lounge

Etihad Airways has opened its new Etihad U.S. preclearance lounge at Zayed International Airport. Located close to the U.S. Customs and Border Protection (CBP) preclearance facility, the new lounge provides eligible guests with a space to unwind after completing their U.S. entry formalities and before boarding their flight.

"This new lounge marks another milestone in our commitment to delivering exceptional experiences for our guests," said John Wright, chief operations and guest officer at Etihad Airways.



IMAGE: JETEX

Jetex and Joby work together to advance sustainable air mobility

Developers for electric air taxis Joby Aviation and executive aviation company Jetex have strategic partnership to redefine connectivity for Jetex customers.

The two companies will focus initially on Jetex locations across the Middle East, where Joby plans to install its Global Electric Aviation Charging System (GEACS), to support Joby operations that will connect Jetex passengers to a network of vertiports, offering efficient and sustainable travel across the region and between Emirates.

"At Jetex, sustainability is a key focus of our strategy, and our partnership with Joby represents an important step forward in achieving our vision of greener skies," says Adel Mardini, founder and CEO of Jetex.

"We are committed to driving innovation that reduces our industry's environmental impact, and integrating Joby's electric air taxis into our network allows us to deliver cleaner, quieter, and more sustainable travel experiences, starting in the UAE."



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Pegasus orders 200 Boeing 737-10s

Pegasus Airlines has signed an agreement with Boeing for 200 Boeing 737-10 aircraft. Under the terms of the agreement, Pegasus has placed a firm order for the first 100 Boeing 737-10 aircraft for delivery from 2028, with 100 additional purchasing options, which can be converted into firm orders in the future.

The total value of the contract for 200 Boeing 737-10 aircraft is approximately 36 billion USD.

Gülüz Öztürk, CEO of Pegasus Airlines, said: "We are confident that our collaboration will create new opportunities for local manufacturing, technology transfer, R&D, training, and employment in the Turkish aviation industry."

"When considered within the scope of Boeing's National Aerospace Initiative launched with the Turkish government in 2017, our order will also open new doors and create production and export opportunities both for Turkish manufacturers and for the wider aviation industry."



IMAGE: PEGASUS AIRLINES



IMAGE: EMIRATES AIRLINES

Emirates reveals VIP uniform

Emirates has unveiled a new uniform designed for its premium and VIP passenger services team.

The premium and VIP passenger services team is responsible for the transfer of premium and VIP personnel through Dubai International Airport (DXB).

Designed in-house by Emirates' uniform standards team, there are three different variations of the uniform – an A-line skirt suit for ladies, a pant suit for ladies, and a tailored three-piece suit for gentlemen.

Turkish record

Turkish Airlines has successfully achieved the Guinness World Records title for the 'Most Countries Flown to by an Airline'. Based on Guinness World Records evaluation criteria, Turkish Airlines set the record with flights to 120 countries, reflecting only the active routes of the past 12 months.



IMAGE: RIYADH AIR

Riyadh Air receives first Dreamliner

The first Riyadh Air Boeing 787-9 Dreamliner landed at King Khalid International Airport in Riyadh in January.

The leased aircraft marks a significant milestone for Riyadh Air and will serve as a technical spare and training asset.

This aircraft is in addition to Riyadh Air's original order of 72 Boeing 787-9 Dreamliners. It will be utilised over the coming months for pilot and crew training, as well as to support the airline's Air Operator Certificate (AOC) process with the General Authority of Civil Aviation (GACA).

Once operational readiness is achieved, the aircraft will serve as a technical spare to ensure smooth operations when Riyadh Air begins service in 2025.

■ Riyadh ready to roll - Page 14

Radar systems

EDGE and Indra Sistemas (Indra) have established a new joint venture, PULSE, aiming to foster local capabilities for the development and manufacture of radar systems. Located in Abu Dhabi, the project will be supported by a robust order pipeline from existing and potential customers in high-potential markets worldwide.

Saudi growth

Saudi Arabia's aviation sector saw 'exceptional growth' in 2024, reports the General Authority of Civil Aviation (GACA). In 2024 Saudi aviation passenger numbers increased by 15 per cent to 128 million in 2024, 24 per cent above pre-

pandemic levels, with flight numbers rising by 11 per cent to 902,000.

There was also a 16 per cent increase in connectivity with the Kingdom now connected to 172 destinations on a weekly basis around the world. Saudi Arabia's air cargo sector also recorded a stellar 34 per cent increase in volume, reaching more than one million tons in 2024.

TII lander scoop

The UAE Space Agency and the Technology Innovation Institute (TII) have signed an agreement to design and develop the EMA Lander.

The EMA Lander will be aboard the MBR Explorer and will be deployed to study the seventh asteroid Justitia, as part of the Emirates Mission to the Asteroid Belt (EMA).

Under this agreement, TII will lead the design, development and testing phases of the lander, as well as providing opportunities for start-ups' participation in the development of the project, in line with the mission's commitment of allocating 50 per cent of the project to UAE-based companies, as it aims to create substantial economic opportunities, spur Emirati

start-ups, and attract international partnerships.

The agreement was signed by Dr. Ahmad Belhoual Al Falasi, minister of sports and chairman of the UAE Space Agency, and Faisal Al Bannai, secretary-general of the Advanced Technology Research Council.

Donkey skins

The Donkey Sanctuary has joined forces with Emirates to highlight the risks posed by the transportation of donkey skins in air cargo.

Working together, the Donkey Sanctuary and Emirates have co-created the aviation risk and threat assessment operational guide to highlight the risks posed by the donkey skin trade and its association with serious and organised criminal activity.

According to the Donkey Sanctuary's latest figures, six million donkeys are killed for their skins each year.

These skins are then exported across the world, by ship and by air, before being used to make traditional medicine and remedies.

Cool coalition

Emirates has joined the 'Move to -15°C global coalition', securing its place as the first airline to the initiative.

First launched at COP28 hosted in the UAE, the 'Move to -15°C coalition' aims to redefine frozen food temperature standards and reduce energy consumption in the frozen food supply chain.

The working hypothesis suggests that a three-degree change in temperature could make a significant environmental impact with no compromise on food quality and safety.

By bringing together cross-industry partners, the coalition will explore the real-world implementation

of this research through data sharing, suggested operational revisions, collaborating with members and stakeholders.

Aerospace innovation

Mubadala and Safran are joining forces to accelerate aerospace innovation and development within the UAE. This enhanced strategic framework agreement focuses on key areas of maintenance, manufacturing, human capital development, advanced material and space.

Ismail Ali Abdulla, executive director of UAE Clusters, at Mubadala's UAE Investments Platform said: "This agreement underscores our shared commitment to upskilling local talent, empowering

the next generation of engineers and professionals to lead in the global aerospace industry."

Tripoli milestone

The general director of Tripoli International Airport, Mohamed Abdelkader, has revealed a milestone has been reached towards the reopening of the airport after 10 years of inactivity. On October 28, Libyan Express successfully conducted a test flight with its Beech 200 King Air aircraft, landing and taking off from the airport's secondary runway.

Abdelkader said that a navigation control tower has been installed and successfully tested, and that both internal and external security measures

have been established to ensure the airport's safety. He added that partial flight operations are set to resume at Tripoli International Airport.

Turkish support

Turkish Technic has signed two agreements with SunExpress Airlines, a joint venture of Turkish Airlines and Lufthansa.

The first agreement encompasses comprehensive component pool support, granting SunExpress access to Turkish Technic's extensive inventory and tailored component solutions. This service will cover both the Boeing 737NG and Boeing 737MAX fleets, ensuring optimal component

availability and minimising aircraft downtime. A second agreement will cover the complete landing gear overhaul and spare operations for SunExpress' Boeing 737NG fleet.

Red Sea alliance

SITA has entered a strategic partnership with Saudi Arabia's Red Sea International Airport (RSI). The provider in air transport technology solutions will provide advanced airport systems for enhanced passenger processing and operations at the new terminal.

RSI is a pivotal part of the Red Sea destination, developed by Red Sea Global. By 2030, the airport is expected to serve one million guests annually.

Kuwait receives first Airbus A330-900

Kuwait Airways has taken delivery of its first Airbus A330-900, becoming the first airline in the Middle East to operate the aircraft.

The delivery marks a key step in Kuwait Airways' transformation strategy, which includes enhancing its fleet to drive future growth. Kuwait Airways already operates a fleet of four A330-800s.

Kuwait Airways' A330-900 will feature three cabin classes with 278 seats: 32 business class, 21 premium economy and 225 economy class seats.



IMAGE: KUWAIT AIRWAYS

Saif Al Dahbashi: "Increasing export sales is a top priority to help fund the domestic requirement. We cannot evolve the requirements and advance the development of systems if you don't have international sales."

IMAGE: BILLYPIX



Left: The Juniah UCAV was unveiled at IDEX 2023. Could this be a flagship product of the future for Edge? Right: A UAE platform with UAE weapons. The indigenous Calidus B-250 is seen at the Dubai Airshow in 2023 displayed with Edge's Al Tariq and Thunder P-32 precision guided munitions.

IMAGES: ALAN WARNES

could, in just five years, rise so rapidly to become a global industry player punching well above its weight across multiple domains."

Missiles and Weapons

Managing director Hamad Al Marar had previously spent four years in the group's senior management team, most recently as president of the missiles and weapons cluster. That big responsibility now falls to Saif Al Dahbashi who stepped into his new role on the same day Al Marar became managing director.

On his new objectives, Al Dahbashi said: "Increasing export sales is a top priority to help fund the domestic requirement. We cannot evolve the requirements and advance the development of systems if you don't have international sales. The government will only support you so much – you need to be sourcing real revenue."

Al Dahbashi's told *Arabian Aerospace* at the Bahrain Airshow: "My primary role is to develop

At IDEX (International Defence Exhibition) in February 2023 we saw the new public face of the new business. Edge showed off the new Hunter unmanned combat air vehicle, that could be integrated with many of its munitions, like the RASH series of low-cost mortar bombs and Desert Sting precision-guided munitions (PGMs).

There was the Air Truck, QX56-50 cargo UAV, but it was the big Juniah jet-powered unmanned combat aerial vehicle model that caught much of the attention.

Precision Guided Munitions

Some of Edge's PGM programmes are more mature than others, with the Al-Tariq bomb certainly in the latter category. The combat-tested and proven Al Tariq range of PGMs, is a flexible family of bomb kit systems, used on the Mk 81 (250lb), Mk 82 (500lb) and Mk 83 (1,000lb) bombs.

There are three different seeker head options – GNSS (global navigation satellite system)/SAL

Another family of PGMs in Edge's portfolio include the Thunder short-range guidance kits that can be integrated on the 250lb Mk 81 (P-31), 500lb Mk-82 (P-32) and 2,000lb Mk 84 (P-4) general purpose bombs utilising inertial guidance augmented by GNSS.

Al Dahbashi wants to provide effective guided munition solutions for platforms and systems all over the world, that's his dream and as a result is integrating Halcon and Al Tariq weapons onto platforms like the Bayraktar TB2.

With the UAEAF&AD buying 80 Dassault Rafale multi-role fighters, it's not surprising that the Al Tariq and Halcon weapons will be among its armoury. "As system integrators we have a group of Edge engineers working in France, with Dassault," he said.

That could bring further Al Tariq sales to Egypt, which already using the weapon on its MiG-29s and Mirage 2000s.

Joint ventures

Edge has established a strong network of 23 joint ventures that are playing a central role in the group's success. In May 2024, Edge launched a joint venture with Spain's Indra Sistemas to develop and manufacture radar systems within the UAE and a hugely-significant strategic partnership has flourished with Brazil, marking Edge's expansion in South America.

In September 2023, Edge announced the acquisition of a 50 per cent stake in Brazilian smart weapons and high-tech systems specialist, SIATT.

Al Dahbashi finished: "The main focus of this partnership is to continue development of the initial Mansup anti-ship missile. The target is to deliver Mansup to the Brazilian Navy in late 2025, and we will then use these early building blocks to continue our next-generation development – the extended range.

This collaboration was followed by a broader strategic partnership that positions Edge as a long-term partner to the Brazilian Navy, co-investing in advanced solutions, including UAE-developed anti-jamming technology. Most recently, Edge and the Brazilian Navy agreed to cooperate on anti-drone systems, fostering an even stronger relationship. ▲

EDGE'S GUIDED MISSION

Abu Dhabi based Edge celebrated its fifth anniversary last November, five years that have seen an impressive rise in sales performance. Now the company looks to broaden its horizons.

Alan Warnes reports.

Formed in November 2019 by the UAE government, this new defence conglomerate took over the bulk of UAE's defence companies, aiming to become financially independent.

Bringing together these businesses, that in several cases were competing with each other, has allowed the Edge management to strengthen areas that could expand and succeed.

In February 2024, shortly after being appointed as the group's managing director Hamad Al Marar said: "UAE military represents 90 per cent of Edge's business with only 10 per cent coming from international markets. That is going to have to change and the ambition is to gain a 60/40 sales split, bringing with it a sizeable transformation in Edge's fortunes."

In an announcement in December 2024, the group declared it had secured more than 200

major contracts, with 25 per cent of these representing international agreements in 2023.

By September 2024, it noted, international contracts accounted for 42 per cent of its order intake.

Among its notable achievements, Edge secured a €1bn contract to supply corvette vessels to the Angolan Navy while strategic agreements with the UAE Armed Forces include US\$1.62 billion for Desert Sting precision-guided munitions and US\$582 million for the Thunder precision guided munitions (PGMs). By September 2024 Edge group-managed companies had achieved an order backlog amounting to US\$12.8 billion.

His excellency Faisal Ai Bannai, Edge group chairman said in a statement last December: "In a constantly evolving and highly-competitive international defence landscape it was almost conceivable that a new disruptor from the UAE

the company's flagship programmes, and others that are currently in development, ensuring they are on time, on cost and on quality. Some programmes in the development lifecycle are more mature than others – like the Desert Sting series.

"The smaller 16kg Desert Sting 16 precision-guided munition is already in production, while the 25kg Desert Sting 25 is still under development, with the focus being on the implementation of some improvements in the software, and to improve the seeker's accuracy. Our target is to integrate these and all our weapons on to as many platforms as possible."

Platform integration

Today Edge has expanded its product portfolio from 30 in 2019 to an impressive 201 cutting-edge solutions across air, land, sea and cyber domains – a rapid growth of 550 per cent in just five years.

(semi-active laser), GNSS/IIR (imaging infra-red) and GNSS/INS (inertial navigation system).

Converting these unguided bombs into high-precision, longer-range focused munitions using an array of guidance and propulsion technologies enables Al Tariq to adapt to new priorities as missions evolve.

Five years ago they were upgraded with new Block 2 enhancements, that host improvements like an enhanced navigation system and are fully compliant with US military standard 1760 (MIL-STD-1760), French standard DIGIBUS, and also boast new height-of-burst-sensor (HOBS) capabilities.

The most recent version to evolve is the lower-cost Al Tariq – S (short range) with a stand-off range of 45km with flip-up fins.

As Al Dahbashi said: "The Al Tariq kit will always evolve, whether it is a evolution of its performance or an evolution of cost and speed."

Dubai has established a resilience centre to strengthen the city's ability to manage risks, emergencies, crises and disasters. The centre will develop simulations and scenario exercises for enhancing preparedness. **Chloe Greenbank** takes a closer look.

THE BRINK TANK...

Preparing for the unthinkable is “a challenging, yet integral part of Emirates’ culture,” explained Gill Sparrow, manager, emergency response planning at Emirates.

Speaking ahead of the December opening of the airline’s new Crisis Management Centre (CMC) at Emirates’ headquarters in Dubai, Sparrow explained, “The emergency response and crisis management team is one nobody wants to know about... until they need to. Then we are the team that is front and centre.”

The airline’s decision to upgrade to a new state-of-the-art facility reflects the growing complexity of crisis management in modern aviation.

“The previous CMC, built in 2008 and last updated in 2013, has been an excellent facility but technological and facility advances have allowed us to completely remodel the centre,” Sparrow noted. “This new facility leverages these advances by modernising IT systems and integrating the very latest conferencing tools. For instance, the old video conferencing set up was incompatible with Microsoft Teams, creating inefficiencies during critical moments and underscoring the need for an upgrade.”

Critical role of the human factor

Highlighting the critical role of the human factor during crises, another key feature is the addition of breakout rooms for executive briefings and private discussions.

The importance of such spaces was underscored during the EK521 incident in 2016. The new facility now incorporates a board room which can be screened off and discrete breakout rooms ensuring privacy and flexibility for sensitive meetings.

The upgraded CMC also provides better care facilities for the crisis management team. The new design incorporates a dedicated lounge area with catering amenities, creating a more comfortable and efficient workspace.

“These enhancements ensure team members can focus during extended activations and provide a better environment to ensure appropriate passenger and family support,” Sparrow explained.

Technological improvements further enhance the facility’s capabilities. Integrated ceiling microphones and speakers allow the crisis director to streamline communications and decision-making by making announcements from anywhere in the suite.



However, Sparrow pointed out that microphones are excluded from breakout rooms to maintain confidentiality.

“The layout balances the ability to collaborate effectively with operational efficiency, providing ample space for team members and seamless communication with both internal and external stakeholders,” she said.

The upgraded facility represents a significant investment and demonstrates the importance that Emirates places on crisis planning. For Sparrow and her team, their overriding aim is that it will be used sparingly – the existing CMC was only fully activated three times in 2024, including for the floods in April and during the regional tensions.

The CMC is activated at the discretion of the head of Emirates’ Network Control Centre (NCC), with the emergency response programme (ERP) team, led by Sparrow, working alongside operational departments throughout the year to ensure the CMC, its crisis directors and designated personnel are constantly prepared and ready to manage a crisis effectively.

Sparrow and the ERP team lead regular training sessions, update planning strategies, conduct briefings, and analyse incidents from other airlines. They also maintain communication with the airline’s stations worldwide to ensure comprehensive preparedness.

Activation of the CMC follows a structured

incident categorisation system. A category A, Sparrow explained, signifies an aircraft accident triggering immediate activation of the facility. Categories B through D cover varying degrees of severity, such as significant injuries, or missing aircraft; while less critical incidents (categories E, F or G) include operational disruptions or security threats that are monitored initially at least by the NCC.

“Any of the first four categories would likely get the CMC open, perhaps not fully staffed or fully activated, but it would trigger its opening and most importantly it means a crisis director is appointed. That’s a green light to getting decisions made and implemented efficiently.”

Sense of urgency and awareness

The system ensures the appropriate response while avoiding overuse of the facility. Sparrow emphasised: “We have to be mindful that we don’t misuse the room. When it’s activated everyone’s mindset changes. There’s a sense of urgency and an awareness that we are dealing with a major incident, but everyone in it must also feel comfortable and that they’re working in a collaborative environment.”

Crisis directors (of which there are currently six) are hand-picked by senior leadership, and must undergo rigorous training to prepare for high-pressure situations.

“The selection process prioritises operational experience and a demonstrated ability to adapt



“Having a dedicated CMC enables Emirates to respond to such situations both flexibly and efficiently.”

GILL SPARROW

investigation support, and other essential tasks. The team is typically deployed near the incident site and must remain prepared to mobilise at a moment’s notice.

Once activated, the CMC operates within a structured framework, with pre-defined roles and responsibilities for each department. The central table seats representatives from 15 key departments including commercial, HR, finance and legal, each equipped with their own crisis plans.

“There are no telephones or computers at the central table because this is where the thinking is done, decisions are made and action is taken based on the available information and approved crisis plans,” she said.

Each department representative is supported by a team member in the room who has access to a computer and phone lines and who liaises with wider team members and external stakeholders.

“This separation allows the central team to maintain a strategic ‘helicopter view’ of the situation, ensuring focused decision-making and avoiding the risk of them becoming overly tactical,” noted Sparrow.

The unpredictable nature of crises

Having a well-structured crisis plan and checklists are essential in ensuring a well-coordinated response during the critical initial hours of an incident. However, the unpredictable nature of crises demands ongoing reassessment and prioritisation.

“The CMC team must evaluate and respond to the unique challenges based on the specific accident scenario, geographical location and political sensitivities, particularly in cross-border incidents,” explained Sparrow. “Having a dedicated CMC enables Emirates to respond to such situations both flexibly and efficiently.”

By addressing past challenges and fostering a culture of continuous improvements, the airline’s aim is to respond effectively to emergencies while prioritising the well-being of passengers, crew and families, even if, as Sparrow hoped, these worst-case scenarios remain hypothetical. “No two incidents are ever the same, but when a crisis hits, we go from zero to 100 in 60 seconds.

“The CMC cannot be compromised; it has to be available and the team always ready to go. With this new facility we are prepared to hit the ground running,” Sparrow concluded. ▲

and learn,” revealed Sparrow. “But it’s also vital the crisis directors are willing to listen and take advice from others fulfilling support roles.”

Training includes theoretical and practical components, with two full-scale corporate exercises annually, in addition to shorter, more frequent sessions. “These exercises, which typically last four hours, simulate real-world scenarios to test the effectiveness of the crisis management framework,” explained Sparrow.

Emirates also conducts gap analyses, comparing its procedures with those of other airlines to identify areas for improvement.

Sparrow cited insights learned from past incidents, such as the two Malaysia Airlines incidents in 2014 – MH370, which went missing

while flying from Kuala Lumpur to Beijing, and MH17, which was shot down while flying over eastern Ukraine.

“Both these incidents led to procedural changes, such as redefining the activation and deployment of the ‘go team’ based on the location of affected families and, in the case of MH370, the lack of an incident site, as well as how to support affected family members.”

The ‘go team,’ Sparrow explained, comprises personnel, specialists, volunteers, and other airline support staff trained to provide a range of critical services in the aftermath of a major aircraft incident.

These services include humanitarian assistance, crisis management, accident

Riyadh Air is gearing up for operations this spring and already plans to have 100 international destinations in its route network by 2030, as well as offering cutting-edge technology. **Ella Nethersole** reports.

Riyadh ready to roll...

Riyadh Air, Saudi Arabia's new start-up airline, is close to announcing its first operations in Q2 2025, to a yet undisclosed European destination.

Ambitious plans are already in place for the airline, which is based at King Khalid International Airport, with CEO Tony Douglas saying it will pride itself on bringing global tourists flocking to "the land of opportunity."

"We plan to operate domestic and international scheduled flights to more than 100 destinations by 2030," he said. "I wouldn't over-play it, but the reality is that everyone wants a new start-up."

He added that many countries had 'new entrant rules', which means that new carriers are given priority over existing operators at even slot-constrained airports.

"What we've observed is the energy behind Riyadh Air has been extremely well-received by potential global airports, and so many people want access to Riyadh."



Keeping in line with the airline's sustainability drive, the airline's fleet of a total of 132 aircraft includes 60 state-of-the-art Airbus A321neo aircraft, with the three variants of the A321neo – the standard version, the A321neoLR and the even longer-ranged A321XLR.

"The Airbus A321neo aircraft enables us to support economic growth in the aviation industry, and it will ensure Riyadh Air operates one of the most fuel-efficient fleets," said Douglas. "The aircraft will be delivered between 2026-2030."

The airline has also ordered 39 Boeing 787-9s, designed to reduce noise and cut fuel consumption and CO2 emissions, together with options for a further 33, with a further widebody order – Boeing 777-9s or for Airbus A350-1000s – scheduled to be placed next year.

The airline, owned by the Public Investment Fund (PIF), already has cooperation agreements with SkyTeam members Delta Air Lines, China Eastern Airlines, and Saudia, and Star Alliance members; Turkish Airlines, Singapore Airlines, Air China, and EgyptAir.

Douglas also said the airline is considering ordering

dedicated freighters. "If we have 72 widebody aircraft, we are going to be a big freight operator anyway," he said. "However, it would be normal for an airline of that scale to also operate four to six dedicated freighters."

The airline is also ahead of its game with its digital-first initiatives.

"We have a very clear statement and that is to be a digitally-led business that enables travel," said Douglas.

To achieve this, it has developed a cutting-edge mobile app, powered by AI. Similar to digital banking, the Riyadh Air app delivers a personalised user experience, offering tailored travel recommendations, and 'seamless' functionality to ensure a modern and effortless journey.

Douglas explained: "Riyadh Air will transform the booking and travel experience for guests including group bookings all combined in one place rather than scattered across multiple bookings."

"Artificial intelligence will also offer personalised options that are tailored to the needs of individuals, for example should a guest be running late, they could opt for last-minute fast track."

"Passengers can also book hotels, lounges, taxis, or even concerts or football tickets at the same time as booking flights, ensuring everything needed for their full travel itinerary is completed instantaneously and solely on the Riyadh Air shopping cart."

He added: "Riyadh Air's digital offering evokes a time when the aviation sector was the pioneer of aviation – quite simply, this is what passengers have been waiting for when it comes to travel experiences being available in a one stop shop."

Almost 99 per cent of Saudi nationals use their mobile phones for browsing as they seek speed, efficiency and convenience, and Riyadh Air will meet their travel needs where everything can be booked in one place. We will be at the forefront of innovation when it comes to booking travel experiences."

For now, we wait for an official date of its operations. ▲

● Riyadh Air will transform the booking and travel experience for guests. ●

TONY DOUGLAS



IMAGE: BILLYPIX



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While Middle East airlines are set to increase profitability in 2025 and stand out as generating the highest profit per passenger within the industry, the impact of conflict in Gaza and the Lebanon means it is a case of mixed fortunes across the region. **Graham Dunn reports.**

MIXED FORTUNES FOR THE MIDDLE EAST DESPITE RISING PROFITS

IATA projects Middle East carriers will post a net profit of \$5.9 billion in 2025, up from \$5.3 billion in 2024. While that makes the Middle East the third most profitable region in the world in absolute terms, its carriers notably generated the highest profit per passenger of \$23.1 in 2024 – expected to rise to \$23.9 in 2025. This is more than double the \$10.3 profit per passenger made by North American carriers.

“The region continues to be very positive around the outlook for 2025, but that does mask the fact there will be certain parts of the region that will continue to be very heavily

impacted by what is happening in Gaza and Lebanon,” said IATA director general Willie Walsh, speaking in Geneva on December 11 at the IATA global media day.

“I think it’s been a surprise that it’s not impacted everyone in the region,” he added. “It seems to be localised to carriers in and around that area. It has clearly

impacted, particularly on tourism in the region. But the big Middle East hubs

don’t appear to be impacted by it and continue to grow in terms of their traffic.”

That strong performance by the big Gulf hub carriers is in part driven by another ongoing conflict, the war in Ukraine and the related ban on overflying Russian airspace facing many European and some Asian operators. That has driven increased demand from Europe for traffic connecting through the Middle East hubs.

The big Gulf connectors have also helped fill a gap resulting from still to be restored capacity between China and the USA. “When we look at traffic flows, we can see a big increase in traffic flowing from the US over the Middle East into Asia and vice-versa,” said Walsh.

He also highlighted a “very strong” premium leisure market that has supported

yields – IATA says the Middle East was the only region to increase yields in 2024 – as well as the strong cargo performance, which has enjoyed a fresh upturn amid challenging conditions for maritime cargo and booming e-commerce in China.

“While it [the conflict] is impacting parts of the Middle East, we still think the prospect of growth in the region remains quite robust. But its principally around the major hubs in the Middle East,” said Walsh.

Middle East carriers lifted capacity 10 per cent during 2024 and plan similar growth of around nine per cent in the 12 months ahead –

the highest level of growth of any region bar Asia-Pacific airlines, which remains in catch-up mode.

These growth ambitions though are at risk from continued supply chain challenges – an ongoing global issue Walsh says airline leaders have lost patience with and is curtailing the industry’s ability to fully tap travel demand.

“It impacts on everybody, but I think it’s fair to say that the Middle East is impacted

more than most because of the significant growth plans that some of the carriers in the region have,” said Walsh.

While frustrations are high around supply chain challenges, and risks remain – chiefly around a spreading of existing conflicts, potential trade wars stemming from the new Trump administration and a failure in expected lower oil prices materialising – the forecast improvement in Middle East airline profits is in line with the global picture.

IATA sees all regions lifting their financial performance amid lower oil prices and steady economic growth, as global net profits climb \$5 billion to reach \$36.6 billion. That is based on airline revenues topping \$1 trillion for the first time in 2025 and growth of almost seven per cent to take total passenger numbers past five billion. ▲



Willie Walsh: “While the conflict is impacting parts of the Middle East, we still think the prospect of growth in the region remains quite robust.”

IMAGE: IATA



Jazeera currently has a fleet of 13 Airbus A320ceo and 11 A320neo (pictured), with deliveries of 18 A320neo and eight A321neo due to start in 2026. IMAGE: JAZEERA AIRWAYS

As Kuwaiti low-cost-carrier Jazeera Airways marks its 20th anniversary in 2025, it has major expansion plans.

Alan Dron takes a closer look.

Last year marked something of a homecoming for Jazeera’s new CEO, Barathan Pasupathi. This is Singaporean citizen Pasupathi’s second stint at the airline, having been CFO from 2007-10.

Latterly, he was CEO of Singaporean low-cost carrier (LCC), Jetstar Asia and it is LCCs that have driven expansion in recent years, he noted. In countries such as Indonesia, Philippines and Malaysia, LCCs account for 50-75 per cent of seats. In Kuwait, Jazeera has around 35 per cent of the local market, giving room for growth.

The carrier currently has a fleet of 13 Airbus A320ceo and 11 A320neo, with deliveries of 18 A320neo and eight A321neo due to start in 2026. Given the continuing problems with new-generation engines and ongoing delivery delays, Pasupathi is happy to retain the older-generation ceos as part of the fleet.

As part of this process, Jazeera announced plans in December last year to purchase six of the A320ceo it currently has on lease. The move from leased to owned aircraft is aimed at reducing unit costs and mitigating the ongoing supply chain challenges that have badly affected deliveries of new aircraft.

“We’re very pleased with the ceo,” Pasupathi said. “We’re equally pleased with the 18-20 per cent fuel saving we’re getting with the neo. However, look at the current supply chain and log-jam with manufacturers.” Although nobody has indicated that Jazeera’s aircraft will be delayed, “We still need our aircraft to be delivered from the second half of 2026.”

DAWN OF A NEW JAZEERA?

The airline has grown significantly from a decade ago, when it had seven A320s. It will expand to more than 40 aircraft when the new examples are delivered (some older aircraft will be retired or returned to lessors).

The new A321s, in particular, will be a game changer for Jazeera, said Pasupathi, notably on busy Indian subcontinent routes.

Whether Jazeera opts for the standard A321neo, LR or XLR variants has still to be decided. “We have to be sure it makes sense” to go beyond five to six hours’ flying time, he said.

Jazeera is also looking at ‘densifying’ seating on its aircraft. Although this may mean less leg-room, with an average flight time of just under three hours, the CEO does not see this as deterring passengers.

India is a major target for future expansion: “There are one million Indian residents in Kuwait, but one of the lowest number of bilateral seats. There’s a tremendous opportunity for us to pursue. I think Kuwait has got a great case.”

Recently, Jazeera has made considerable inroads into Central Asia. The Moslem nations there, which traditionally had limited international air links, have provided a ready-made market for Gulf carriers such as Jazeera. The decision by Saudi Arabia to extend the duration of umrah, the ‘little pilgrimage’, has made religious traffic from the region almost a year-round phenomenon.

Going in the other direction, several Central Asian nations are investing in inbound tourism, which is slowly attracting Gulf Arabs who enjoy

visiting countries with a culture and history that overlays their own.

Closer to home, one of Jazeera’s biggest markets is Egypt, while Saudi Arabia is also a major destination, with the Kuwaiti carrier having as many as eight frequencies a day to Jeddah, three or four to Medina and Riyadh, plus services to several regional centres.

Jazeera is unusual in having its own terminal at Kuwait International Airport – Terminal Five. This has proved so popular that it is operating beyond design capacity – almost five million passengers in 2024 compared with its capacity of around 3.5 million.

Given Jazeera’s planned expansion: “We really need to build terminal capacity to 7.5 to 8 million in the next two to three years.” Land is available adjacent to T5 and the expansion plan – ‘T5E’ – is being finalised. Construction will take 18–24 months.

To counter Jazeera’s longstanding complaint of some Gulf carriers dumping capacity in Kuwait and ferrying Kuwaiti traffic through their hubs, Jazeera has kept its fares as low as possible and created direct flights to around 60 destinations, instead of passengers requiring a layover of several hours further down the Gulf. ▲



Barathan Pasupathi: “We’re pleased with the 18-20 per cent fuel saving we’re getting with the neo.”

IMAGE: JAZEERA AIRWAYS

The continuing strife in the Middle East formed an inevitable backdrop to the annual meeting of the Arab Air Carriers Organization (AACO) in Jordan. **Alan Dron reports.**

Carrying on in a sea of troubles

The importance of aviation during one of the Middle East's worst bouts of conflict for 30 years was summed up by AACO secretary-general Abdul Wahab Teffaha as he moderated a panel of airline CEOs during the organisation's annual meeting.

What helped him to keep going in the crisis, he said, was the sight of aircraft continuing to land and take off from Beirut's Rafic Hariri International Airport, providing vital connectivity for Lebanon. Seeing the airport still operating in the face of such adversity was the only thing that gave him "a glimmer of hope" in the situation.

Maintaining those international links was also the critical mission of Middle East Airlines (MEA) the airline's chairman told the meeting.

MEA's top priority had been to continue to serve Lebanon and keep the airport open, Mohamed El-Hout said. Although there had been risk in operating into Beirut during the crisis, it had been a calculated risk, he said.

AACO's Teffaha said that, with Israeli military aircraft continuing their assault, Beirut-based AACO's staff had continued preparations for the annual meeting despite the nightly explosions of bombs and missiles.

"The office never closed in Beirut. Luckily we're all OK, we're all fine, we're all sane, which is the most important thing. Obviously, this episode is extremely stressful for anyone who is living in such an environment where buildings are being destroyed, people are dying and so on.

AACO's meeting was held in the calm of the Jordanian side of the Dead Sea, with executives clearly able to see Israel, less than 10km across the water.

After MEA, Royal Jordanian (RJ) has been the

airline worst affected by the conflict, despite Jordan maintaining its traditional calm. Misplaced fear that Jordan is caught up in the fighting has seen tourist numbers to the country plummeting; for example, visitor numbers to the ancient city of Petra are down to 20 per cent of normal, one tourism official confided.

Despite the turmoil, RJ was pressing ahead with both route and fleet plans, said CEO Samer Majali. The airline is opening several new destinations and the Amman-based carrier is continuing to take deliveries of aircraft as part of a major fleet rollover.

RJ's experience in operating in difficult regions was demonstrated in October through its restart of flights to the Libyan capital Tripoli and the company's plans to start flying to Benghazi in the east of the country and possibly Aden, in Yemen.

New routes

And in the midst of the year-long conflict, RJ opened new routes to London Stansted and Manchester in the UK, re-opened services to Berlin and Düsseldorf in Germany and is scheduled to start services to Stockholm, Sweden.

Majali said that much of RJ's ability to cope with the problems was down to the fact that it had lived through similar events several times in recent decades.

While most airlines had to handle the 2008 recession and the pandemic, Jordan's geographic position had meant that it had also been at the centre of two Gulf wars and the periodic flare-ups between Israel and its Arab neighbours.

While acknowledging the tragedy and gravity of the recent conflict, he made the point that "We're used to dealing with this stuff."

Aircraft deliveries to RJ have also continued over the year – notably, five of a batch of eight



The AACO annual meeting took place in the calm of the Jordanian bank of the Dead Sea – with Israel just 10km away across the water.

IMAGE: ALLSORTZ

lot of unknowns going on."

On the positive side, he said, the first Airbus A350-900 would enter service in January 2025.

Emirates plans to use its 65 A350s for both regional services to secondary destinations around the Gulf, Europe and the Indian subcontinent, and also for ultra long-haul missions to the Americas and Australia.

Initial destinations will include European cities including Edinburgh, Lyon and Bologna, Gulf destinations including Bahrain, Kuwait and Oman, and Indian locations such as Mumbai and Ahmedabad.

Emirates will use two versions of the Airbus A350 – a 'regional' version with 312 seats, followed by the ultra-long-range variant with 290 seats and a crew rest area. Both versions will have a three-class configuration comprising business, premium economy and economy.

The aircraft is important for Emirates as it is the first new type to enter the inventory since 2008 and allows a more economical aircraft to operate on routes too 'thin' for the larger Boeing 777-300ER and Airbus A380.

Embraer E195 E2s, "Which is a major cost saving" compared to both their E170 and E190 E1 predecessors and several elderly Airbus A320s, which the Brazilian aircraft has replaced on several surprisingly long routes, such as the five-hour sector between Amman and Amsterdam Schiphol.

This has helped offset the increasing costs imposed by having to fly longer routes around the conflict zone on Jordan's doorstep. Unable to fly over Israel, diverting over Syria took an extra 20 minutes; over Egypt, an extra 30.

Aircraft deliveries also featured in comments by a senior Emirates executive at the annual meeting, who foresaw even longer delays before the first of the airline's planned Boeing 777Xs arrives in Dubai.

Sharp public demands

The long-delayed new 777 model has caused huge frustration to Emirates' president Sir Tim Clark, who has delivered a series of increasingly-sharp public demands that the US aircraft manufacturer improves its performance. The 777X should have started to arrive in 2020, but the latest estimated delivery date is 2026.

However, even that timescale could prove to be inaccurate said Emirates' CCO, Adnan Kazim. Speaking on the sidelines of the meeting, he said that factors such as the almost eight-week autumn 2024 strike at Boeing, combined with the discovery of a cracked thrust link in one of the 777 flight-test aircraft's GE9X engines, could mean deliveries slipping even further.

"We don't have any timeline on whether it will be mid-2026 or even 2027," he said. Boeing currently believed it would deliver the first aircraft some time in Q3 2026, "but there are a



REMAINING CALM: AACO secretary-general Abdul Wahab Teffaha and Royal Jordanian CEO Samer Majali spoke of the problems their respective organisations have faced during the conflict of the past year. IMAGE: ALAN DRON



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AIRBUS A320PF FREIGHTERS FIND HOME AT VAAYU GROUP

A new cargo operator has started services from Ras Al Khaimah, using the first examples of the Airbus A320P2F freighter conversions.

When Ras Al Khaimah-based Vaayu Group started operations in 2011, it had three main operational pillars – aviation, advisory services and logistics. In 2019 the company boosted the first of those by becoming the launch customer for Singapore-based ST Engineering’s passenger-to-freight (P2F) conversion for the Airbus A320.

The group ordered five A320P2Fs, with a further five options.

□□□□□

ST Engineering sources the aircraft and Vaayu Group agrees on the specification for the aircraft. For example, said the group’s vice-president, sales and marketing, Mustafa Irfan: “We’ve chosen the IAE V2500 engine, which should have a minimum of seven years’ life left.”

It also has an automated cargo loading system on both decks. The first A320P2F was placed with India’s Pradhaan Air, the second with Egypt’s Sky Vision. Fly Vaayu is now operating one itself. The A320P2F “is quite a long-range freighter – it can travel up to five hours.” Fly Vaayu’s aircraft is also going for ETOPS certification, which should arrive in the next few months and further increase its versatility.



Vaayu’s Airbus A320P2F freighter conversion. IMAGE: VAAYU

The example leased to Pradhaan primarily carries live animals; India is a major exporter of livestock to the UAE.

Fly Vaayu’s main category is general cargo – anything from textiles to perishables. The company wants to take on more e-commerce freight, but: “We’re so busy on the general cargo business right now and don’t have the scale [for e-commerce] at the moment,” Irfan said.

That could be remedied by what Irfan sees as the natural next aircraft for Fly Vaayu, the Airbus A330F

freighter. That would give the airline the necessary capacity to carry e-commerce loads, which tend to be light, but bulky.

Irfan has lived in Ras Al Khaimah for 18 years, which made the local airport the new airline’s obvious base. “RAK Airport is completely under-utilised and we wanted to offer a gateway to the northern emirates”, as opposed to the normal logistics channels in Dubai and Sharjah, said Irfan. “RAK is an emerging market in an emerged UAE. That’s where the opportunities are.”



New horizons beckon for Texel Air, while Mena Air Cargo is moving from air to ground operations. IMAGES: TEXEL AIR AND MENA AEROSPACE



Opening up the doors of opportunity

Two Bahrain-based air cargo companies have announced very different plans for the future. One will expand, the other will move into a completely new aviation sector.

Alan Dron investigates.

Bahrain-based Texel Air has spread its wings as far as Australasia over the past two years. The cargo specialist now operates four Boeing 737-800 Boeing-Converted Freighters (BCF) from Adelaide, Brisbane, Darwin and Perth, plus another from Auckland, New Zealand. It has a further five 737s – two -700 FlexCombis and three -800BCFs – based in Bahrain. Two years ago, the airline operated only four 737s.

The idea for expanding “Down Under” arose during the pandemic, when New Zealander John Chisholm, father of Texel Air’s CEO, George Chisholm, was ‘locked down’ in his home country and saw a gap in the market.

In 2023, Texel dispatched an initial 737-800BCF from Bahrain to fly for the New Zealand Post Office and Freightways – the two organisations are rivals in surface transport, but run a joint venture airline, Parcel Air Express. The Australian aircraft, meanwhile, operate in the livery of Team Global Express, another major package carrier.

“We just saw that we could add value, bringing our learning from the Middle East back to Australasia,” George Chisholm told *Arabian Aerospace* at the Bahrain International Air Show. Texel’s -800BCFs were a generation younger than the 737 ‘Classics’ flying with local carrier Airwork, with better range and payload capabilities.

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Texel has been granted, extended diversion time operations (EDTO), the local equivalent of the US ETOPS regulations, which allow an aircraft to be a certain amount of time away from a diversion airport – 120 minutes in the case of EDTO. This allows Texel’s aircraft to undertake longer overwater sectors to destinations such as the Cocos Islands between Australia and Sri Lanka, and to Chatham Island off New Zealand.

However, despite the expansion, management of most aspects of the Australasian operation is still based in Bahrain. Texel’s Bahrain-based operations, meanwhile, are heavily used by package operator DHL, which use two Texel aircraft, with a third aircraft used for surge operations in periods such as the busy winter season.

More expansion is approaching: Texel aims to have a further three 737s in operation by the end of 2025.

Meanwhile, MENA Aerospace is undergoing a major change in its focus, moving away from its cargo airline business to freight forwarding and providing hangar space around the region.

MENA Aerospace and Bahraini real estate developer Infracorp plan to build several maintenance facilities around the Gulf.

The first project will double the size of the company’s existing hangar at Bahrain International Airport, with the expanded facility hopefully operational within the next 24 months, said Infracorp’s head of special projects, Abdulaziz Tawfeeqi.

“The core of our business is to construct [but] this is our first venture into the aviation industry. In the hope of diversifying our portfolio, we came up with a collaboration with MENA Aerospace, who have the technical and operational know-how. We know how to build, they know how to operate.”

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After the Bahrain project, the partners will look at Oman: “We see a lot of opportunities there. It’s a market that’s growing quickly,” Tawfeeqi said. Thereafter, the next obvious target is Saudi Arabia, which is rapidly growing its aviation eco-system as part of the Vision 2030 project to diversify the economy.

Managing director of MENA Aerospace, Dr Mohamed Ahmed Juman, said the new project marked a major shift in focus for the Group.

“When I started MENA, it was never supposed to be an airline,” he said.

The company initially held a private jet AOC, but then moved into cargo. However, by the time it got a freight airline AOC, the cargo market was already shrinking back to pre-pandemic proportions and the airline is now sub-optimal in size.

As a result, MENA Cargo Airlines will now dispose of its two 737-300F freighters.

“In addition, we’re focusing on our second pillar, the MRO business. Last year, we did around \$15 million of work for third-party airlines.” Now, MENA will focus on developing hangars that will be leased out to MRO suppliers. ▲

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AVIATION WEEK
NETWORK

Alan Warnes discusses with USAF commanders the role the US Air Force plays in helping to defend its allies in the Middle East – and why partnerships and face-to-face connections are key to safeguarding the region.

ME & US: THE UNITED FRONT

When the Middle East's fragile peace is broken, which sadly is a regular occurrence, the US government is always there to provide support and reassurance to its allies.

It's no secret that most countries in the region fear Iran and its many militias, like the Houthis in Yemen, Hezbollah in Lebanon and Hamas in Gaza. Just as they do the more well-known extreme Islamic groups like the Islamic State and al Qaeda.

Saudi Arabia and the UAE has regularly come under attack, while Bahrain, Kuwait, Oman and Qatar are just as susceptible. Egypt, another major US ally, continues its fight against radical elements in the Sinai.

Working with foreign militaries and governments is important to the US, which is a major responsibility of U.S. Central Command (CENTCOM). The man currently tasked with leading this herculean effort for U.S. Central Command's air component is Lieutenant General Derek France, the commander of U.S. Air Forces Central (AFCENT), who splits his time between Qatar and the USA.

USAF's presence in the Middle East

The author caught up with the AFCENT Commander at the Egyptian International Air Show (EIAS) in mid-September and asked him to sum up the USAF's presence in the Middle East.

"The region is really tense right now, so one of the things we do at AFCENT/CENTCOM is send forces out here to help fulfil our long-term goal to stabilise the region – we get a return in value, provides assurance to partners, and long-term stability."

Maintaining regional partnerships is key to the US, as Lt. Gen. France explained: "The US is never going to do anything on its own, because we are spread all over the world. To have all our resources in one theatre is just not realistic."

"Our key to success is to have partnerships like we do with the Egyptians – working on technical interoperability like using the same radios, datalinks, etc."

"What I try to stress is to have cultural connections and face-to-face connections so we can get our allies through military training in the



The Crown Prince of Bahrain, Prince Salman bin Hamad Al Khalifa, deputy supreme commander of the armed forces and prime minister was escorted by AFCENT's Colonel Andy 'Cuffs' Ladd (right) around the B-52H at Bahrain. Seen walking behind is AFCENT Commander, Lt Gen Derek France.

IMAGE: ALAN WARNES

US, and development programmes." He added, "You can be technically-linked all you want, but if you are not humanly-linked it's a real challenge."

He provided an example of how AFCENT works in Egypt. "The Egyptian Air Force is a very capable air force and they really strive to partner with us. It's important we build multilateral relationships that we can't get from an email or a telephone call. Instead meet each other face-to-face to have some meaningful dialogue."

"Egypt is one of my focusses and we recently held our joint biennial Egyptian-led Bright Star exercise, which is the flagship of the work we do together. We have touchpoints with them in multilateral exercises through the Air Warfare Centre [at Al Dhafra] in UAE."

The USAF don't generally send their most sophisticated fighters to air shows, like EIAS or the more recent Bahrain International Air Show (BIAS) in November. "Let's say we send 'the seasoned combat jets' like the Boeing F-15E, Lockheed Martin F-16C and Northrop Grumman A-10Cs. They may not be as flashy as others, but they get the job done."

The USAF even sent an iconic Boeing B-52H to BIAS, along with an A-10C tank-buster and F-16CM which definitely fit that 'seasoned' category because as the serial numbers of each aircraft showed, they have served the US collectively for around 140 years, giving the three aircraft an average age of nearly 50 years!

That's not to say the USAF doesn't send its cutting-edge fighters to the region, because in August, 12 Lockheed Martin F-22A Raptors were flown to an undisclosed location in the Middle East in a bid to keep the peace.

The B-52H's appearance at Bahrain was a sensation, so much so that the crown prince of Bahrain, prince Salman bin Hamad Al Khalifa, deputy supreme commander of the armed forces and prime minister jumped in his golf buggy and drove up to the bomber, surrounded of course by his security personnel. He received an escorted tour from colonel Andy 'Cuffs' Ladd, AFCENT's director of strategy and theatre security cooperation.

The colonel explained to the author why the eight-engined bomber was at BIAS. "Not only does the B-52's presence here show that the US is engaged, postured, and ready; it also demonstrates a credible force to assure, deter, and defend in an increasingly complex and dynamic security environment."

The most dominant fighting force on the planet

But it didn't end there, because on the second day of the three-day event, two B-52Hs also opened the flying display, with not just one or two, but three formation flypasts. As colonel Ladd said, "This sends out a clear message to our potential adversaries, that while we have no desire for a war, if conflict cannot be avoided, the coalition has the most dominant fighting force on the planet."

The USAF had announced on November 3 that six B-52s had been deployed to the region from the 5th bomb wing at Minot AFB, North Dakota. The first time B-52s had deployed to a base in the Middle East since 2019. It was also the first time a 'Buff' had made an appearance on-the-ground at a Middle East aerospace show.

According to the USAF release "the B-52s were providing fresh air power designed to compensate for the upcoming departure of the USS Abraham Lincoln carrier strike group. It also came as senior Iranian officials threatened to attack Israel following its retaliatory airstrikes on Iranian air defences and ballistic missile production sites on October 26."

While the B-52s came from an undisclosed location in the Middle East, they could easily



Allied force: Northrop Grumman A-10C Warthogs as well as several other types have been deployed to the Middle East in recent months to support the USA's local allies.

Inset: The USAF's massive Boeing B-52H Stratofortress bomber was on show at the Bahrain International Show in mid-November. Providing such a show of force reminds potential adversaries in the region what consequences they could suffer.

IMAGE: ALAN WARNES

have come from anywhere in the world as Colonel Ladd stressed. "They can fly from anywhere to deliver global precision strike and return back to a safe location. This sends a very clear and unambiguous message to any aggressor that we are in a constant state of readiness to bolster the coalition's defence ecosystem to assure peace and stability across the U.S. central command area of responsibility."

One of the many hats that colonel Ladd wears includes integrated air and missile defence (IAMD) systems coordination in the region.

"This is the only way to stop an enemy capable of attacking from 360 degrees, by providing enhanced situational awareness to allow enough reaction time to stop the incoming threats (missiles, unmanned aerial systems) etc. from inside [the aggressors] territorial borders."

Multiple threats from all directions

"You could have multiple, complex threats coming from all directions, not just ballistic missiles. These complex threats consist of a combination of land-attack cruise missiles, many different variants of weaponised unmanned aerial systems that are capable of flying great distances from multiple countries."

"You need to provide adequate detection synchronised with capable and compatible weapon systems to destroy those threats. The US can assist in enhancing those efforts by offering its own capabilities."

The very capable, highly-regarded long-range Raytheon MIM-104 Patriot surface-to-air missile system is in service with seven countries in the Middle East – Egypt, Jordan, Kuwait, Qatar, Saudi Arabia and UAE with Bahrain joining them in early 2024 to become the 18th Patriot operator.

The IAMD system doesn't just protect the skies of one country in the Middle East, the six nation Gulf Co-operation Council (GCC) are partnering together to complete a network that overlaps all the airspace.

Colonel Ladd explains and finishes: "We have made huge strides in establishing the collective framework to counter threats for the long-term peace and security of the region." ▲



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Alan Warnes reviews the new aircraft that the Royal Bahraini Air Force (RBAF) was showing off at the show in November as well as the no-show Lockheed Martin Block 70 F-16s.

Bahrain check

Over the past six years, the Royal Bahraini Air Force has been on quite a spending spree – 16 Lockheed Martin Block 70 F-16C/Ds, 12 Bell AH-1Z Zulu Cobras, three Bell 505 training helicopters, two ex-RAF Lockheed Martin C-130J Hercules as well as the Raytheon Patriot system.

Major general Shaikh Hamad bin Abdullah Al Khalifah told *Arabian Aerospace*: “All these purchases need to be paid for so that might be it for a while!”

The commander also said that the nine Block 70 F-16s, including three two-seaters delivered by the time of the show, were being used to train personnel, and they were not yet operational, but that should happen in the near future.

It was disappointing that there was no Block 70 on display, and that they were not even included in the RBAF formation fly-by of three F-16s, three F-5s and three Hawks.

At the last Bahrain International Air Show in 2022, the AH-1Zs had also just been delivered, and while there wasn't one in the RBAF static display, an official symbolic handover of the helicopter in the US area of the static display took place.

Obviously the RBAF wasn't ready for that yet, as the RBAF Commander said: “The project is not completed yet, and we still need more equipment. Our older but capable Block 40s have been fitted with very advanced equipment [in an upgrade], are still operational and we get a lot out of them. Once we have finished with the introduction of the Block 70s, we might alter the role of the Block 40s.”

Whether that role will mean an upgrade is unlikely, the near billion dollar cost probably forbids that a time when there are other more important issues, like defending itself from Iran and its militias.

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The new Block 70s house the Northrop Grumman APG-85 scaleable agile beam radar (SABR) active electronically-scanned array (AESA) radar; a new modular mission computer (MMC) and a large centre pedestal display with improved programmable displays amongst other things.

There also provisions for use of highly-capable US weapons, like the Raytheon AIM-9X Sidewinder AAMs; Raytheon AIM-120C advanced medium-range air-to-air missiles (AMRAAMs); Raytheon AGM-154 joint stand-off weapons (JSOWs); Boeing AGM-84 Harpoon anti-ship missiles and Raytheon AGM-88 high-speed anti-radiation missiles (HARMs).



Top: Two different generations of AH-1 Cobras. On the left is the upgraded 1960s era AH-1FB and on the right, the 2020s five-bladed AH-1Z Zulu.

Above: A relatively new Bell 505 was among the exhibits in the RBAF static display. IMAGES: ALAN WARNES



It is unclear what weapons are involved in the deal, but the above were included in the 2017 US Defense Security Co-operation Agreement notification to US Congress. The Block 70s will undoubtedly be a valuable asset.

The RBAF static display included two variants of Cobra this year, one was an AH-1FB Cobra upgraded by Turkish Aerospace Industries during 2018-20 which went largely unnoticed by many.

It came at a time when relations between Turkey and Bahrain along with Saudi Arabia and UAE, were not in a good place because of the different sides they took in the Libyan civil war. As a result, neither the RBAF or TAI were willing to discuss the project.

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Turkish Aerospace upgraded 18 AH-1Fs agreed in June 2015, that draws upon avionics systems already operational on Turkey's T129 advanced attack and reconnaissance (ATAK) helicopter.

The work includes integration of the AselFLIR 300T electro-optical, reconnaissance and targeting turret into the attack helicopter's nose, which was covered up during the static display.

The deal also included an enhanced weapons package that is believed to include the 7.62mm CIRIT missiles and UMTAS long range anti-tank guided missile. Parked alongside the new AH-1Z, which only had 27 hours on the airframe, you could certainly see the generational difference with the shape of the 1960s era AH-1FB.

Another new helicopter in the static display was the five-seater Bell 505 training helicopter, one of the three that was delivered in March 2023. The RBAF Commander said that there were plans for more, but no contract had been signed.

They are being used to train new pilots for the RBAF's large fleet of helicopters, that includes around 30 AH-1s, nine UH-60Ms and a small number of AB212s. ▲

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CHALLENGE. CREATE. OUTPERFORM.

Business and general aviation has long been the poor relation in the Middle East where a clear focus has been on the region's world-leading commercial airlines – but the UAE and Saudi Arabia have turned their attention to the related business aviation and advanced air mobility markets to push for global leadership.

Alan Peaford reports.

TACKLING THE UPWARDLY MOBILE CHALLENGE



Aqeel Ahmed Al Zarouni: "The GCAA will appoint a dedicated 'ambassador' for the private aviation sector."
IMAGE: BILLYPIX

There may not be a lot in common between a speculative eVTOL concept and a well-established corporate jet that can whizz half a dozen executives or sports stars around the world.

But there is. Both face the challenge of being non-scheduled airlines and therefore face different regulations and often misunderstood when there is a last-minute request for clearances. The new advanced air mobility (AAM) industry is also facing the hurdles of certification that are recognised as costing well over a billion dollars to meet requirements that might not yet have been determined.

But at December's MEBAA show there was a marked optimism that two of the giants of the region's regulators, the UAE's GCAA and Saudia Arabia's GACA have focused on the challenges and clearing the way to revolutionise the systems, raising the bar for global aviation standards and opening doors to allow AAM to flourish.

Increasingly, the Gulf has become a focus for major events in both sport and industry. With Saudi Arabia named as the FIFA World Cup 2034 host, following the smooth running of the Doha event in 2022, Gulf airports can expect to see a boom from business aviation. But it isn't just a one-off.

The UAE sees a continuing increase in demand for premium transport experiences, while Saudi Arabia's business aviation sector is experiencing a surge fuelled by the Kingdom's expanding economy, significant government investment on infrastructure, and a growing influx of high-net-worth individuals.

According to TechSCI

research the segment was valued at \$1.2 billion in 2023, but is projected to grow at a compounded annual growth rate of 8.88 per cent between 2025 and 2029.

Meanwhile, the UAE sees the opportunity to establish itself as the clear hub for business aviation as the GCAA's assistant director-general for aviation safety affairs, Aqeel Ahmed Al Zarouni said at MEBAA.

"The GCAA will appoint a dedicated 'ambassador' for the private aviation sector "to personalise support to operators, with a single point of contact for seamless communication and assistance," Al Zarouni said, as he announced a new framework of regulations and processes designed to simplify life for operators.

"The new package will cut the time, and thus costs, associated with operating in the country," Al Zarouni said. "For example, acquiring an Air Operators Certificate (AOC) has traditionally taken up to 18 months. This will be cut to as little as six months, assuming the applicant is geared up to provide the necessary information to the GCAA in support of its bid."

Maintaining security and safety

The new package aims to strike a balance between streamlining processes and upholding the UAE's high standards of security and safety.

Asked whether the new package had been introduced to fend off increasing competition from Saudi Arabia in the aviation sector, Al Zarouni said: "We cannot ignore competition, but competition is healthy. Competition is something we encourage ... regardless of whether it is for business aviation, or aviation in totality."

An indication of the UAE's desire to increase its attractiveness to the business jet sector came in his comment that the country aims to double, or even triple, the current 87 private aviation aircraft



on the country's register "in a short time frame".

Meanwhile, Saudi Arabia is taking action based on the road map announced at GACA's Aviation Forum last year, which aims to support the Kingdom's development as a global high-value business and tourist destination.

It targets a ten-fold increase in the contribution to gross domestic product by the general aviation sector to \$2 billion by 2030, covering the business jet segment, including charter, private, and corporate planes.

Both of the regulators are also turning attention to the AAM market and the mood is spreading across the nations. In January the Dubai Civil Aviation Authority (DCAA) signed an MoU with the country's port and customs authority (PCFC) with a commitment of both entities to support the UAE's strategy of developing advanced infrastructure and a sustainable aviation industry.

The main focus on this is clearing the way for drone operations with the DCAA set to enable PCFC's use of drones in its operational domains, providing a clear guidelines to define permissible geographic zones for drone operations and issue necessary permits.

Regarding heliport landing fields, the MOU outlines the procedures for service

requests and requirements for certifying heliport landing fields owned by PCFC. The DCAA will oversee approvals and conduct inspections to ensure compliance with safety standards, while PCFC will provide necessary facilities for approvals and operational processes.

"We are dedicated to provide a safe and sustainable environment that supports the aviation sector in the emirate and maintains its rapid growth trajectory, reinforcing Dubai's position as a global aviation leader," said Mohammed Abdulla Lengawi, director general of DCAA.

First eVTOL passenger ops

Meanwhile, the GCAA is pressing ahead to ensure infrastructure exists when the first of the eVTOLs finally get the go ahead to begin passenger operations.

GCAA granted technical design approval for a planned vertiport next to Dubai International Airport (DXB). The Dubai International Vertiport (DVX), the facility is to be the first of a planned network of four vertiports that Skyports will build and operate as part of a three-way pact with manufacturer Joby and the Dubai Roads and Transit Authority (RTA). The other three vertiports are planned for Palm Jumeirah, Dubai Downtown and Dubai Marina.

Covering an area of about 3,100 sqm,

TAKING OFF: Skyports Infrastructure has had its vertiport design approved for development.
IMAGE: SKYPORTS INFRASTRUCTURE

the three-story vertiport building will have two landing areas designed to support both electric vertical-takeoff-and-landing (eVTOL) air taxis and conventional helicopters. Each landing area will feature fast charging and should be able to support up to 10 aircraft landings per hour, Skyports said.

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 MEBAA it was announced that Archer will be manufacturing its Midnight Aircraft in the emirate. GCAA 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) are facilitating coordination among the Abu Dhabi entities in preparation for the launch of commercial operations – currently projected within the next year to 18 months.

Parties to the agreement include Abu Dhabi Airports, Falcon Aviation

Continued on Page 32



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CONTINUED FROM PAGE 29

Services, Etihad Aviation Training, the GCAA, Global Air Navigation Services, Global Aerospace Logistics and the Integrated Transport Centre.

The progress from the regulators across different fronts received the thumbs up from the sector – with praise coming from speakers at the MEBAA conference.

“The region has always been important to us, but there has been a marked change over the last 12 months in terms of increased interest in business aviation. It’s exciting as there seems to be plenty of interest from regulators reaching out and getting into arrangements with the rest of the international community,” said Aoife O’Sullivan, partner of the Air Law Firm from London.

It is refreshing to see regulators and governments in the Middle East embrace business aviation, O’Sullivan, added that in the UK and Europe, the industry often faces growing anti-aviation sentiment, making the UAE’s “supportive environment a welcome change”.

She underlined the region’s financial landscape is also evolving positively. “Financing private aviation used to be challenging; however the money is now firmly rooted in the region, with financial institutions lending locally and responsibly, fostering a more robust market,” she continued.



She also emphasised that English law’s widespread appreciation across Gulf jurisdictions also facilitates smoother transactions, particularly in markets like Dubai and Abu Dhabi.

“With the UAE streamlining processes around aircraft registration, inspections, and regulatory compliance, this proactive approach, combined with a focus on industry growth, creates an exciting and efficient environment for private aviation to thrive,” she said.

The debate, she concluded, is around the preference for offshore registries versus onshore registries. “Ultimately, the key elements everyone looks for in a registry are ease of access and flexibility – being able to reach someone outside of standard hours when urgent matters arise,” she added.

FAS FORWARD AS FALCON SPREADS ITS WINGS

The grand unveiling of the Dubai-based Falcon private aviation group, with fresh branding, accompanied by an expansive business plan, new investment and a new CEO, took place at MEBAA.

Falcon is the new identity for an enhanced and expanded Falcon Aviation Services (FAS), originally established in 2006 in Abu Dhabi and now a significant helicopter and private aviation services entity.

Earlier this year the founder and chairman of Falcon Aviation Services HH Dr Sheikh Sultan Bin Khalifa Bin Zayed Al Nahyan teamed up with Sultan Rashid Abdullah Rashid Al Shene to create and invest in the new Falcon, headquartered here at the Mohammed bin Rashid Aerospace Hub.



Two months ago, industry veteran Can Sasmaz was recruited to lead Falcon, with current FAS CEO Captain Ramandeep Oberoi continuing to head Falcon’s successful helicopter business.

“Once I saw the predictions and plan for the future of this company, I was very excited and I told myself I have to be part of this team,” said Sasmaz, whose career has mostly been spent in Turkey with a range of players including Turkish Technic, BE Aero and MNG Jet.

Sasmaz is hitting the ground running overseeing a business that is ramping up at pace having acquired 10 aircraft over the past year, including six Bombardier Global 6000s and two Challenger 605s, with four more arriving in the coming six weeks.

ROYALJET TAKES A NEO DIRECTION

It has only taken 10 years of negotiations, but Abu Dhabi-based Royal Jet – the largest operator of Boeing Business Jets – is moving away from Boeing with an MoU signed at MEBAA for three Airbus ACJ 320neo aircraft, and options for six more.

“The business aviation market and the demand for private jets are growing,” Syed said. “As part of our unwavering commitment to provide the RoyalJet brand of service excellence to customers, we are constantly looking at how we can further elevate our level of service and add a new dimension into our market offering.

“We are looking forward to progressing this deal in the near future and be able to deliver a whole new travel experience to customers,” he said.

When asked why the switch to Airbus, Syed said: “Some of it was around diversification, but actually, the



LAUNCH PAD: Can Sasmaz, Falcon’s new CEO, alongside the rebranded operator’s Global 5000 and one of its Tesla Cybertrucks.

IMAGE: FALCON

Additionally, in less than a year, Falcon has already built up a team of over 250 people based in Dubai.

“We are also talking with the OEMs for new aircraft from the factory as we target a fleet of not less than 20 aircraft in the coming year,” said Sasmaz. Falcon is negotiating an initial order for four aircraft for delivery from August 2025 and for a second order for 10 units. Both orders will be finalised within three months, he noted.

Falcon is made up of four units: Luxe, the private jet charter operator; Elite, the private terminal operator; Technic, the MRO business; and Flight Support.

Visitors to the show could hardly miss Falcon’s glitzy stand, a huge welcoming poster on the show walls, funky promo cubes and the full-length branding on the ATC tower, resplendent in the new corporate colour of regal burgundy.

On the static area Falcon showed a Bombardier Global 5000 and a Challenger 605, in addition to a FAS Leonardo AW139 and a Tesla Cybertruck.



ROYAL FAMILY: Shafiq Syed, CEO of RoyalJet and Chadi Saade, president of Airbus Corporate Jets.

IMAGE: BILLYPIX

whole negotiation with Airbus with the right people in place, with the right pricing structure – it seemed to tick all the boxes for us.”

Chadi Saade, president of Airbus Corporate Jets, said: “As a leader in the premium private aviation sector, we are delighted with RoyalJet’s decision to select the ACJ for its next chapter in its growth.

“The ACJ320neo, with its unmatched cabin space, superior comfort, and cutting-edge technology, will enable RoyalJet to provide exceptional travel experiences for its customers, at

the lowest fuel burn of any aircraft in its class.

“It is the perfect choice for connecting business leaders where it matters, when it matters – fostering trade, collaboration, and innovation across global business communities.”

RoyalJet said it is still deciding which engine supplier will be used on the new jets.



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STAR PERFORMER: The Starlink satellite constellation is currently the largest ever assembled.
IMAGE: ALLSORTZ



Starry starry flight...

Qatar Airways is now operating the world's first Starlink-equipped Boeing 777 aircraft. The first flight occurred from Doha to London in October.
Steve Nichols reports.

The airline has become the first carrier in the MENA region to offer passengers Starlink internet connectivity, which operates from gate to gate. The Qatari national carrier said it had aimed to introduce 12 Boeing 777-300s upgraded with the service by the end of 2024. It has further committed to rolling out the technology on its entire Boeing 777 fleet during 2025 – one year ahead of schedule – with the Airbus A350 fleet following in the summer of 2025. Qatar Airways' group chief executive officer, Badr Mohammed Al-Meer, said: "We are thrilled to launch our first Starlink-equipped flight, proving once again why Qatar Airways is at the forefront of the aviation industry. "This milestone, paired with our commitment to rapidly roll-out Starlink across our entire modern fleet, demonstrates our relentless pursuit of offering passengers an in-flight experience that transcends the constraints of traditional air travel. By providing Starlink reliable, seamless internet on board, we are connecting people to the things they love the most even at 35,000 feet, making every journey with us a memorable one."



Starlink is owned and operated by SpaceX. It delivers internet access around the world, including over oceans, the polar regions and other remote locations previously unreachable by traditional cell or Wi-Fi signals. "Over time you'll find it just gets better and better. This is the minimum and it only gets better from here," said SpaceX CEO Elon Musk. With the launch of its first Starlink-equipped flight, Qatar Airways has achieved several industry-firsts, including the world's first Starlink-equipped Boeing Widebody 777, the first Starlink on Qatar Airways passenger aircraft and the first Starlink-equipped passenger aircraft in the MENA region. This also represents the first Starlink supplemental type certificate (STC) for a Boeing aircraft.

As the first-ever service of its kind in the MENA region, the collaboration with Starlink, marks a new milestone for the national carrier.

Qatar Airways' has confirmed the use of Starlink for passengers is currently free, unlimited and wide open to everything from standard web browsing to FaceTime video chats, Zoom calls and even online gaming.

Starlink delivers high-speed, low-latency connectivity to users all over the world. As the world's first and largest satellite constellation using a low-Earth orbit, Starlink now also delivers a broadband internet service to aircraft.

Starlink is engineered and operated by SpaceX and foregoes the long-established inflight connectivity model that uses geostationary satellites in a geosynchronous orbit 35,786 km (22,236 miles) above the Earth's equator.

Instead, it relies on a constellation of hundreds of low-earth orbiting satellites at an altitude of approximately 342 miles (550 kilometres). These communicate with each other using lasers with 9,000+ lasers transmitting more than 10 petabytes of daily data traffic.

A petabyte (PB) is a unit of measurement that's equal to 1,000 terabytes (TB) or one million gigabytes (GB). That's a massive 1,000,000,000,000,000 bytes.

The lasers can also sustain a 100Gbps connection per link, can connect up to 3,300+ miles apart, and maintain a mesh network with 99.99% uptime.

Starlink delivers up to 40-220 Mbps download speeds to each aircraft, enabling all passengers to access streaming-capable internet simultaneously. Data is transmitted and received via two phased-array antennas on top of the aircraft's fuselage.

Because the satellites are only hundreds of miles high they offer very low latency, or delays, with latency less than 99 milliseconds.

As of November 2024, there were 6,764 Starlink satellites in orbit, with 6,714 of them working. The Starlink satellite constellation is currently the largest ever assembled.

A Starlink satellite has a lifespan of approximately five years and SpaceX eventually hopes to have as many as 42,000 satellites in a so-called mega-constellation. ▲



IMAGE: TURKISH AIRLINES

Turkish Airlines said it is committed to bringing free unlimited inflight connectivity to all passengers starting from late 2025.

This initiative will involve a comprehensive overhaul of the airline's existing fleet, which it says will be retrofitted with "cutting-edge inflight connectivity (IFC) technologies".

These upgrades will expand the current WiFi service, already available on most Turkish Airlines flights, to cover all passengers at no extra cost.

The number of airlines now offering complimentary WiFi services is expanding, such as Qatar's recent announcement that it is to offer SpaceX's Starlink service to Boeing 777 passengers free of charge.

The national carrier of Turkey currently provides inflight Wi-Fi on its aircraft, with various options dedicated to short-haul and long-haul flights. Free internet access is available to business class travellers as well as Miles&Smiles programme subscribers.

TURKISH TO PROVIDE FREE INFLIGHT INTERNET FOR ALL BY LATE 2025

Members currently enjoy up to 400MB of data and unlimited messaging during their journey. This gives them the chance to stay connected, plus they can purchase more if they exceed their quota.

For international flights additional data currently costs US\$5 for unlimited messaging, US\$8 for 100 Mb or US\$15 for 250Mb. Unlimited data on international long-haul flights costs US\$35.

Turkish Airlines says it is open to collaboration with suppliers, and the carrier is actively negotiating with local and international suppliers that can offer the best IFC service solutions for its entire fleet.

In addition, Turkish Airlines provides support to Turkish companies in the development of

solutions for this connectivity service. The airline has signed a memorandum of understanding (MoU) with TCI Aircraft Interiors, a certified aviation products provider, and Turksat, a regional leader in satellite technologies.

The signing of the MoU highlights that the carrier is helping to support Turkish companies in establishing a presence in the IFC sector.

In a statement it added: "Following the necessary feasibility studies, all stakeholders will work to develop an understanding and endeavour to transform the MoU into a definitive agreement. Turkish Airlines remains committed to ensuring the highest level of passenger experience and advancing the Turkish aviation industry." ▲

IT'S ALL GO FOR GOGO AND GALILEO

Gogo has launched its new Galileo inflight connectivity system, powered by low Earth orbiting (LEO) satellites.

Gogo Galileo combines the latest Eutelsat-OneWeb LEO satellite technology to deliver speeds of up to 195 Mbps for secure internet to the aircraft.

This means business jet passengers can now enjoy better in-flight connectivity, including internet browsing, video streaming, and live TV via their own tablets, smartphones and laptops.

The company was at MEBAA 2024 in Dubai to display its HDX antenna option for Gogo Galileo. The OneWeb satellite network currently has more than 630 Ku-band satellites in low-Earth circular orbit at an altitude of about 1,200 km (750 miles), spread across 12 synchronised orbital planes.

To access the satellites, business aviation users have a choice of two antenna options, called HDX and the slightly larger FDx, to fit on any size business aircraft.

The HDX option can deliver up to 60 Mbps download speeds and 11 Mbps up with low-latency service. The faster FDx option can deliver up to 195 Mbps down and 32 Mbps up.

Eutelsat-OneWeb's satellite constellation offers high-speed, low-latency inflight Wi-Fi around the

Gogo Galileo uses Eutelsat-OneWeb's satellite constellation.
IMAGE: GOGO



globe, even over the poles, and with no bandwidth sharing with residential customers.

The service is a straightforward add-on to any existing Gogo Avance inflight connectivity system with the addition of a single antenna. For new customers, Gogo Avance simplifies the installation with everything in one unit, plus one antenna.

Gogo is currently working on Galileo STCs for a range of business aircraft, including models by Airbus (ACJ), Bombardier, Dassault, Pilatus, Embraer, Gulfstream, Hawker and Textron.

The company has acquired IFC specialist Satcom

Direct, giving it access to business aviation, military and government mobility markets.

Other LEO systems for business aviation include the new Starlink system, which is being fitted to Qatar Executive's Gulfstream G650ER fleet. This can deliver up to 350Mbps, allowing passengers to stream movies and TV shows, live sports, and work uninterrupted.

Another LEO system in the pipeline is Amazon's Project Kuiper. This will bring global broadband access through a constellation of more than 3,000 satellites, but it is still a couple of years from full commercial launch. ▲



Pole star: Etihad Engineering completed its first 12-year check on a Boeing 787 Dreamliner for LOT Polish Airlines.
IMAGE: ETIHAD ENGINEERING

LOTS TO SEE IN THE GAME OF ZONES

MRO and Airline Interiors Middle East provide valuable opportunities to connect with industry experts and stay at the forefront of the aviation industry's evolution. This year's event provides some interesting innovations.

Chuck Grieve reports.

The Middle East's top trade show for MRO and aircraft interiors once again brings a banquet of innovation and thought leadership to the Dubai World Trade Centre (DWTC) in February.

Attracting more than 7,500 attendees, MRO Middle East and the co-located Aircraft Interiors Middle East (AIME) is the largest event of its kind in the region: an annual, focused industry event free from the distractions of general airshows.

This year's edition opens for two days on February 10, taking over the larger venue of DWTC's Sheikh Saeed Halls 1-3. More than 250 international exhibitors – suppliers representing all levels of the supply chain – will feature, as well as more than 80 experts speaking on a wide range of topics at the free-to-attend Go Live! theatre.

MRO Middle East brings together leaders and companies representing the entire supply chain in aircraft maintenance, repair and overhaul to explore the latest technologies and strategies shaping the industry.

AIME showcases cutting-edge trends in cabin design, passenger comfort, and inflight entertainment, "offering a glimpse into the future of aircraft interiors", as show organiser *Aviation Week* puts it.

As an aid to efficiency and visitor convenience, the organiser has created dedicated zones on the show floor.

These include the interiors pavilion that groups AIME exhibitors (see sidebar), and country and regional pavilions, with the French contingent once again prominent.

Networking lounges on the edge of the show floor are open to all attendees who can pre-schedule meetings via the app or host ad-hoc meetings on site.

Organisers have added a dedicated area for one-to-one meetings away from the busy networking lounge.

An airline buyers programme facilitates meetings by notifying exhibitors of a buyer's request to meet.



The Go Live! theatre presents a programme covering the major pressure points of the industry with a blend of presentations and panel discussions. The popular state-of-the-industry discussion at noon on opening day this year poses questions about the capacity challenges facing Middle Eastern MRO operations to a panel of leaders, including chief executives Fraser Currie of Joramco and Ziad Al Hazmi of Lufthansa Technik Middle East (LTME).

Al Hazmi, anticipating audience interest in strategic partnerships and developments to help mitigate these challenges, told *Arabian Aerospace* that LTME had recently pioneered a

Continued on Page 38 ▶

ABOVE AND BEYOND EVERYTIME.

WHEELS AND BRAKES IT'S THAT SIMPLE

PREVIEW

CONTINUED FROM PAGE 36

“significant innovation” in partnership with Sanad and Khalifa University: an automated chord measurement system integrated with a robotic arm, successfully trialled in the UAE.

He said: “This collaboration is set to transform MRO processes, reducing repair turnaround time and enhancing operational efficiency while positioning the UAE as a hub for aviation excellence.”

At the show, LTME will be promoting mobile engine services: bundling solutions for smart repair work scopes that can often be conducted in smaller workshops, sometimes on-site at customers’ premises, or even on-wing.

A special focus will be on its Rolls-Royce Trent 700 thrust reverser capability, which is “experiencing increasing demand here in the Middle East” from Airbus A330 operators. A plan to expand the MRO’s capability on GENx-1B inlet cowls will also be in the frame in discussions with Boeing 787 owners and operators.



Major chord: Automated chord measurement system and robotic arm developed by partners Sanad, Lufthansa Technik Middle East and Khalifa University. IMAGE: SANAD



The prime position of Joramco, a DAE company near the entrance, emphasises its status among regional MRO operations. The Amman-based independent arrives at the show fresh from inaugurating a new hangar – its fifth – which adds another five lines of maintenance at its busy Queen Alia International Airport (QIAA) site.

DAE Engineering, the parent company of Joramco, had “an amazing 2024”, said chief executive Jeff Wilkinson: “another record-breaking year with tremendous growth, stats and ultimately revenues, up more than 25 per cent year-on-year.” With the new hangar at QIAA and the potential for two more widebody lines, “we expect to break even more records in 2025,” he added.

Saudia Technik also occupies a prominent position at the show, the better to promote its



Team spirit: Sanad is proud of the diversity of its 400-strong workforce and the internal training programmes that build a pipeline of talent. IMAGE: SANAD

EMIRATES AND ETIHAD LEAD THE RETROFIT REVOLUTION

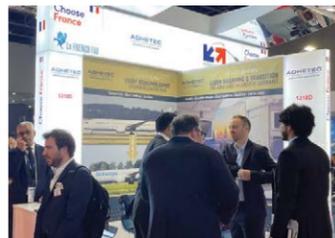
Innovations in technology and materials are expected to figure prominently at AIME as exhibitors eye up opportunities, particularly in cabin retrofit programmes led by two of the region’s largest operators, Emirates and Etihad Airways.

For insights into the intricacies of retrofitting, show goers should plan to attend a panel discussion at noon on day two where the focus will be on how optimising resources and balancing project scope, costs and objectives can impact delivery of significant projects.

Panelists will outline common risk areas, causes of delays, and how the turnaround time of cabin retrofitting be reduced.

Emirates is in the midst of a multi-billion dollar programme, described as the largest airline retrofit programme ever. The project was expanded last spring to cover all 191 aircraft in its fleet.

The airline said 30+ major partners and suppliers were already supporting its in-house teams in



French industry is once again well represented at AIME. IMAGE: BILLYPIX

carrying out the work. By the time the project is complete at an unspecified date, the airline says it will have installed 8,104 next-generation premium economy seats, 1,894 refreshed first-class suites, 11,182 upgraded business class seats and 21,814 economy class seats.

Etihad, meanwhile, plans to start a billion-dollar retrofit programme on older Boeing 777 and 787 aircraft in its fleet in 2026, the earliest apparently

ambitious MRO Village development in Jeddah. The company appointed industry veteran Abdulkhaliq Saeed last August as chief executive to oversee the next stages of the project’s development. Bahrain native Saeed joined from Etihad Engineering where he was credited with overseeing the Abu Dhabi facility’s transformation into a one-stop shop provider and the expansion of its third-party work to around 70 per cent of overall business.

Etihad Engineering brings news of its first Boeing 787 Dreamliner 12-year check, completed in December on a LOT Polish airlines aircraft. The work was completed in less than 60 days, and is described as a “significant milestone” for the Abu Dhabi MRO in cementing its reputation for heavy maintenance.



Meanwhile, new LEAP engine capabilities at its Abu Dhabi site will be a talking point on the Sanad stand. The Mubadala-owned MRO arrives fresh from announcing an expansion to add CFM LEAP-1A servicing to the -1B certification achieved in 2023. The company said the new capabilities build on the success of its LEAP MRO Centre over the last year when it serviced more than 25 -1B engines.

Sanad’s latest expansion is supported by investments in state-of-the-art technologies including advanced high-pressure turbine (HPT) capabilities, enabling full piece-part disassembly for both LEAP-1A and -1B engines by early 2025. “Traditionally these engines would be maintained outside the region,” chief executive Mansoor Janahi said. “By localising this capability, we help others reduce their transport costs and fuel burn.

“As a group, we work hard to future-proof our business by developing next-gen capabilities to balance mature and new market segments. The demand for our product is very strong. ▲

that manufacturers can deliver new interiors. The airline cited ongoing supply chain bottlenecks that are delaying delivery of new aircraft from both Boeing and Airbus in its decision to undertake the work.

In December, Saudia announced plans to enhance its guest experience, including a transformation of business class cabins, introduction of high-speed inflight internet, and enhanced entertainment options. The flag-carrier signed contracts with suppliers including Collins Aerospace and Panasonic Aviation for retrofit programmes.

AIME exhibitors will also be watching Qatar Airways (QA) where the focus is on the airline’s ground-breaking Qsuite business class configuration.

A next-gen version is due to be rolled out in 2025 on QA’s new B777-9 aircraft, which will also be fitted with deluxe first-class suites.

Reports indicate QA is not considering Qsuite 2 upgrades to its current fleet. ▲

Another record year for Joramco

The secret of Joramco’s success is no secret at all – it’s simply having the right offer at the right time and delivering on commitments, as chief executive Fraser Currie explains.



Fraser Currie: Legacy of high-quality work and on-time delivery gives customers confidence.

The last year has been an exceptional one for Amman-based Joramco, the MRO arm of Dubai Aerospace Enterprise (DAE), another record year for the region’s largest independent maintenance operation.

Chief executive Fraser Currie has a simple explanation. “The demand was in the market, there was a shortage of capacity internationally, and our legacy of high-quality work and on-time delivery gave customers confidence,” he said.

Consistency – of management as well as delivery – is an important factor, he added. “As we grow and become more complex, we’ve added to our management team. We made several great hires and internal promotions last year, and it paid off.

“The team is working seamlessly with what we still call a laser focus on productivity and efficiency. The attention to detail is something that not all companies afford themselves. We’re fortunate that we have a bandwidth of talent and management and have been doing it for several years.”

An annual independent review and audit of the business carried out by external consultants gives Currie and his team a picture of Joramco’s performance in the international MRO arena. “Those metrics are coming back very positive,” he said.



Seven up: Hangar No 7 added five more lines to Joramco’s capacity.

“We don’t want to reinvent the wheel – we just want to achieve industry norms and wherever possible exceed them.”

Joramco’s targets for 2025 are “significantly higher” than 2024’s, mainly because its new hangar adds an additional five lines to capacity at the company’s Queen Alia International Airport (QIAA) base. Currie says the MRO has “hired well” for the new lines, and expanded the Joramco Academy to make sure its pipeline of talent grows as well.



Tall tails: Joramco welcomes aircraft from many major airlines to its hangars at Queen Alia International Airport.

With the recent ab initio intake, some on scholarships, the academy will have 300 students constantly going through its courses. The academy can now provide specific on-the-job training and type qualification at its Amman site.

“We’ve gone from being a relatively unknown regional independent MRO to pushing ourselves onto the world stage. Our brand recognition is excellent and our capabilities and capacity are vast.”

With that comes the relative luxury of being able to be selective about the type of work his team brings in, making sure it fits Joramco’s profile. “We’re looking at multi-line, multi-year agreements with top tier airlines, lessors and operators,” said Currie, naming dominant players in the Middle East, Asia, Latin America and Europe as key targets.

The Covid-19 pandemic and resulting disruption of global aviation taught Currie much about the company’s resilience, thanks to its diverse portfolio of type accreditations and ancillary services – “multiple pillars to the business”, as Currie puts it.

Helping customers during the pandemic with parking and storage of their aircraft had the result of building up an order book for the future that resulted in Joramco doing return to operations services for multiple types.

The company’s new five-year business plan envisages another two hangars – Nos 8 and 9 – on its QIAA site, one the same as Hangar 7, with the final hangar designated as a dedicated widebody paint hangar. Currie said plans at this stage call for the paint hangar to be configured for two narrowbody and one widebody aircraft simultaneously.

Expansion beyond Jordan is neither a given, nor ruled out. Currie suggests it’s a matter of finding the right opportunity. He said: “Over the last few years, we’ve looked at new sites outside Jordan. There are hangars out there sitting empty and available that we could take on tomorrow, but having the right experienced human resources is the essential factor.

“For now, we still have strategic visions we want to achieve. Three new hangars in Jordan is not insignificant. This will put our capacity at 27 lines plus paint.”

This year, Joramco plans to increase capability within its workshops, principally in partnership with Spirit AeroSystems. Recent capability enhancements have seen the MRO include engine cowlings and thrust reversers, up to Boeing 777 scale.

Also on the cards is ‘going paperless’ in Q1 2025 for greater efficiency. Said Currie: “We’ve rolled it out on several aircraft over several months. Our customers are delighted.”



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IMAGE: JORAMCO



Does the Middle East's MRO need maintenance?

An industrial form of 'long Covid' afflicts the MRO industry. Its symptoms are continued disruptions in the supply chain and shortages of capacity and skilled personnel. Chuck Grieve investigates.

It's no secret that MRO operations globally have been hitting turbulence as aerospace recovers from the pandemic shutdown. The Middle East market, however, appears to be bucking the trend.

Throughout 2024, writes IBA's chief economist, Dr Stuart Hatcher, in the consultancy's annual review and outlook, the supply chain has been "in trouble". Boeing was especially affected.

"With demand continuing to rise (despite consumer spending headwinds) and an underperforming supply chain, [aircraft] availability declined rapidly... Consequently, orders suffered, retirements fell short, and available spares and MRO slots remained tight."

Demand is still expected to outstrip supply in 2025, said his colleague Mike Yeomans, IBA's director of advisory and consulting. "This forecast is underpinned by the ongoing OEM production issues and availability of MRO capacity, neither of which will be fully resolved next year," he said.

But in the view of Jeff Wilkinson, chief executive of DAE Engineering, parent company

of Joramco, the Middle East remains a "booming market" for MRO. "We understand the key players are all comparatively full to capacity for this winter season 2024/5 – and mostly through 2025 too," he told *Arabian Aerospace*.

Some supply chain issues remained, "but we see the tier one operators are really starting to make inroads in their provisioning and planning, which is ensuring nose-to-tail (NTT) lines are running well this season."

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That's not to say all is well on the shop floor, where ground times (GTs) are outside industry norms. Wilkinson said: "I am shocked by how much GTs have been allowed to drift since Covid, and everybody seemingly accepting them!"

The same checks now typically take 30 per cent longer than they did five years ago. "That is very disappointing," said Wilkinson. "It remains the single largest low-hanging fruit if the industry got its act together."

Tim Butzmann, Lufthansa Technik (LHT) senior director of MEA corporate sales, said

increasing regional traffic was a key factor shaping the Middle East market as the resulting growth in the narrowbody fleet creates more demand for localised MRO services.

"While an Airbus A380 has the 'legs' to fly to Manila for MRO, an Airbus 320 or a Boeing 737 doesn't," he said. Smaller aircraft components can be economically shipped around the world, but repairs to large airframe-related components such as reversers and cowlings can often be much more efficiently carried out close to the customers.

Another factor, he said, was the comparatively young age of Middle Eastern fleets.

Butzmann said the two overarching drivers for the entire MRO industry, sustainability and digitisation, will have an impact in 2025 and beyond. "In our opinion, the latter will not stop at rethinking certain MRO processes or procedures; it will probably transform the entire industry, leading to significant improvements for airlines."

The MRO management module in Aviator, the independent digital platform developed by LHT, already improves the interface between buyer (airline) and supplier (MRO).

"In the field of sustainability, we can imagine so-called 'quick win' solutions gaining momentum in the coming years, especially as delivery rates for new aircraft will remain a challenge.

These measures may only offer small – usually single-per cent – reductions

Continued on Page 43 ▶

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CONTINUED FROM PAGE 41

in fuel burn and emissions, but they can be implemented quickly on in-service fleets.”

Around the region, the industry enters 2025 loaded with projects to expand capacity in anticipation of supporting the burgeoning regional fleet of narrowbodies – particularly Airbus A321XLR examples – as their heavy checks come due. Widebody capabilities, notably in Jordan and Turkey, benefited last year with Emirates outsourcing maintenance on its fleet of Boeing 777s.

In Oman (see sidebar), a much-delayed facility may be about to enter the market hoping to take advantage of Muscat’s strategic location on a major east-west flightpath. It’s a familiar rationale, one used with success by Joramco in Amman and Turkish Technic, whose 11 hangars spread across Ataturk, Istanbul and Sabiha Gokcen airports give it the capacity to service 56 aircraft simultaneously.

Swiss-based independent AMAC Aerospace is also expanding after gaining additional land at its Bodrun base in Turkey. The company plans to locate everything from hangars, offices, refurbished aprons, infrastructure to working areas and technical shops in one location.

Construction is expected to take two years, with the facility ready to accept its first airline and business aviation customers in 2026.

MRO market potential does not go unnoticed by newcomers. Bahrain’s airshow in November yielded an agreement between Mena Aerospace, a local freight airline, and infrastructure developer Infracorp to partner on a series of MRO hangars in the Gulf region, starting with expansion of Mena’s current hangar at Bahrain International Airport. An Infracorp spokesperson said it was the company’s first venture into aviation and part of a diversification plan into “a market that’s growing quickly.” The partners are eyeing Oman and Saudi Arabia for their next projects.

In Jeddah, Saudia Technic’s massive MRO Village remains scheduled for opening this year, despite signs of problems that resulted in a change of chief executive mid-year. As the

facility gears up, the company is adding capabilities though partnering agreements such as that signed in December with AFL KLM M&E covering maintenance of GE Aerospace GNext and GE90 engines and ultimately in-country assembly and disassembly.

Staffing remains a thorny problem with no quick fix to increasing the numbers of domestic graduates available to replace an ageing and largely expat workforce. While moves are afoot around the region to increase technical training opportunities, sources admit it can be difficult to encourage more young people into these career paths when other roles – flight deck, cabin crew, marketing – are seen as more glamorous and ‘cleaner’.

An indication of the scale of the challenge for the MRO industry came with the list of recent graduates from neighbouring Ethiopian Aviation University, the largest aviation training institution in Africa. Of the 460 “aviation professionals” welcomed into the workforce, only 84 were maintenance technicians.

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Another problem that will come into clearer focus in 2025 is the size of the qualified domestic workforce: figures are closely guarded, but anecdotally there are still far too few technicians – with notable exceptions – to support the ambitions of their own countries’ airlines.

Part of Saudia Technic’s answer to this quandary has been to welcome women for the first time onto training courses at the recently rebranded Future Technic maintenance training programme at the Saudia Academy in Jeddah. And in a flurry of subsequent activity last autumn, the MRO signed agreements with no fewer than four of the kingdom’s universities to offer women training in aircraft maintenance.

Joramco has long been a proponent of training a domestic workforce – which it has in Jordan. Its dedicated academy in Amman started the academic year in December with 75 new ab-initio students, including 25 on full government-funded scholarships, who joined

MUSCAT BIDS TO JOIN THE MRO COMMUNITY

Oman aviation authorities set an aggressive target of mid-2025 completion in their call for expressions of interest to operate and manage a new MRO facility at Muscat International airport.

The Civil Aviation Authority (CAA) framed its call as an investment opportunity. Senior MRO figures with experience in the Middle East and knowledge of Oman’s aviation sector are less convinced.

The project, which features state-of-the-art buildings and infrastructure capable of servicing aircraft up to and including code F, may experience significant challenges in breaking into the competitive MRO market and its established players in the region, and beyond.

The construction of the new Muscat International airport began in 2011.

The first phase of the project was completed in

March 2018. Operations commenced the same month.

Funded by the Omani government and private investors, the project consisted of 13 work packages; the MRO facility, plus cargo facilities in Muscat and Salalah, made up the second last package, MC-12.

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The Muscat MRO complex comprises a widebody code F hangar suitable for Airbus 380s, a two-position hangar for code C aircraft (typically Boeing 737s or Airbus A320s), ground run-up enclosure (GRE), technical shops, offices, central utility plant, various ancillary buildings, state-of-the-art systems including aircraft wing and tail maintenance docks, overhead cranes, and an automated storage

returning students at the newly-inaugurated premises on site at Queen Alia International Airport (QAIA).

The state-of-the-art academy takes a hybrid approach, combining two years of theoretical education with two years of hands-on experience with the opportunity for a paid internship at Joramco’s facilities. A new partnership with FSTC Europe, the EASA-approved training organisation based in Athens, is already yielding results with type ratings and structured on-the-job training (SOJT) programmes.

Chief executive Fraser Currie said Joramco Academy is “an important step in our expansion plans and vision, as we continue to drive excellence in the aviation industry.”

Like its Jordanian counterpart – and unlike many peers in the region – Turkish Technic has an ample domestic recruitment pool but, as Bilal Karaman, a senior vice-president, said to *Inside MRO*, the real challenge was keeping young people motivated and willing to stay within the sector.

In the UAE, Dubai-based LCC Flydubai has joined the ranks of approved maintenance training organisations after received its GCAA CAR 147 certification, which is based on EASA Part 147.

Flydubai chief executive Ghaith Al Ghaith said: “The certification will help in building a solid foundation for further growth as part of our role in supporting Dubai’s economic and aviation vision.”

The airline said the certification will enable it to cultivate and grow its skilled maintenance and engineering workforce and support its growing fleet. The airline plans to open its first purpose-built maintenance facility in Dubai South by 2026.

And naturally, labour costs rise when there’s a shortage of qualified personnel. Oliver Wyman, in its 2024 survey, said cost management and labour shortages are the top two current concerns in the industry. “The magnitude of labour cost increases for MRO has become unsettling,” the consultancy said, and were expected to be up 5.8 per cent in 2024. It added: “Despite wage increases, the industry is having trouble holding on to the talent it needs.”

A perfect storm brewing? ▲

and retrieval system (AS/RS) for parts storage.

Sources confirmed that the hangars have been years in the making. Originally the MRO hangars and workshops were intended to serve Oman Air’s fleet, which at the time was also expanding across several types.

However, the initial project appears to have been overly ambitious in its scale and cost. Contractors for various parts of MC-12 have complained publicly of problems including inaccurate design drawings and overly “aggressive” deadlines.

With the pandemic shutdown, the hangar developments were first put on hold and later transferred to the authority of the Oman Air Group, which includes Oman Airports as well as the catering and duty-free subsidiaries. The group has overseen the project to its imminent conclusion. ▲

▲ ALL IN A DAY

Damon Seksaoui

Marcelle Nethersole talks to the general manager, aerospace division, Liebherr Middle East.

Can you tell me about Liebherr ME and its aerospace division?

Liebherr Middle East FZE was founded in 2005 and is located in Jebel Ali Free Zone in Dubai. The company is responsible for sales, distribution and support services of the entire construction machine programme of the Liebherr Group as well as maritime cranes. With the growing region's aircraft fleets, Liebherr opened its aerospace liaison office in October 2008, to ensure product support and services towards airlines customers in the Middle East.

In 2015 Liebherr completed the construction of a regional aerospace logistics centre within the same facility. The objective was to support customers with "as if locally repaired" OEM exchange services.

Today, the centre supports airlines with technical expertise, training courses, and repair services on Liebherr's OEM systems and components installed on a multitude of aircraft platforms.

Who do your customers include and can you give examples?

Our Dubai service centre is part of Liebherr-Aerospace's worldwide customer service network. It ensures all-year, around the clock, commercial, technical and logistical support to all airlines to achieve operational performance and growth.

Customers include all aircraft operators flying a Liebherr system or component, ranging from regional flagship carriers, to fast-developing low-cost airlines and private business aviation owners; all keeping passengers and crews mobile and flying safely through Middle Eastern hubs.

Aircraft grounding can cause severe impact on an airline's despatch performance; Liebherr emphasises on proximity to customers for prompt support and tailored solutions for its products with careful consideration to OEM quality, reliability and performance on aircraft.

How does the company keep up with the latest technologies?

Liebherr-Aerospace continuously invests in research and development.

Our after-market services help maintain operational data flow to consistently develop existing products and enhance on wing performance.

Our own Liebherr analytics solutions combine in-depth OEM knowledge of our systems and components with real-time in-flight data to deliver predictive maintenance algorithms and other trend monitoring applications.

Combined with advanced technical support, these bring real added value to aircraft operational performance and enhanced maintenance practices on Liebherr products.

The company will attend MRO Middle East. Why is it important to attend such an event?

Participating in MRO Middle East 2025 strengthens Liebherr's position as a leading aviation supplier by showcasing our innovations and OEM-based support solutions to key industry decision-makers. This event enhances our visibility, fosters strategic partnerships, and provides valuable insights into market trends and customer needs. Engaging directly with customers and partners drives competitiveness and supports our commitment to advancing MRO technologies.

Is the company launching anything new within its aerospace division in 2025?

Liebherr is about to strengthen its presence in the Middle East with plans to establish a new Part 145 repair centre in Dubai by 2026.

Strategically envisioned at the Mohammed Bin Rashid Aerospace Hub, this initiative underscores our commitment to supporting regional airlines and addressing the evolving needs of the aviation sector. By enhancing our MRO capabilities in the region, Liebherr aims to contribute to the industry's growth and foster closer partnerships within the Middle East.

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

A typical day at the office begins with a thorough scan of regional and global aviation news. Following a team greeting and briefing session, the primary focus is on addressing ongoing customer technical, commercial, and logistical support requirements, ensuring that each request is met with a clear and timely response.

The second part of the day involves coordinating efforts with our colleagues in China, Singapore, Germany, France and the United States to drive progress on strategic projects and developments. This collaboration helps overcome time zone differences and ensures efficient customer support and strategic project advancement.

The final part of a typical day is dedicated to planning the following days' activities, structuring customer and internal communications, and preparing for upcoming visits with customers and partners.

This structured approach addresses the challenge of maintaining effective communication across different regions and ensures that all tasks are aligned with customers' expectations and the company's strategic objectives for Liebherr's 'best in class' customer services.



IMAGE: LIEBHERR

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