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SE Asia MRO

THE ROAD TO 2035

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WOMEN IN AVIATION
Making progress, but more can be done

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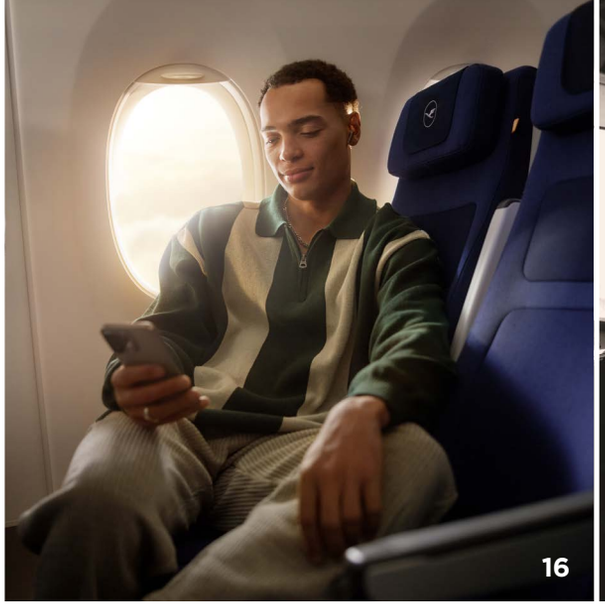
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AVIATION WEEK
by informa









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Editor: Matt Driskill
matt.driskill@asianaviation.com

Managing Director/Publisher:
Marilyn Tangye Butler
marilyn.tangye@asianpressgroup.com.sg

Contributors
Australia: Michael Doran, Emma Kelly
Singapore: Tom King
India: Shelley Vishwajeet
Hong Kong: Roetta Wang

Graphic Design: Elinor McDonald
email@elinor.net.au

Head Office — Singapore
Asian Press Group Pte Ltd

Subscriptions: Rose Jeffree
subscriptions@asianaviation.com

Advertising Offices & Representation

Worldwide: Sally Passy
Phone/Mobile: +44 7968 714 280
sally@bspmedia.com

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Safety first

A couple of recent incidents highlight the need for a renewed focus on aviation safety. Two involved very low fly-by flights by commercial aircraft. I don't know what PR person thought these events would be a good idea but I'm betting they wanted to boost their social media hits for their clients and didn't think about the fallout and the questions that would be raised. And then there's ground control problems that have led to close calls in Sydney.

One event occurred in June when a Boeing 777 cargo aircraft flew dangerously low with one of its wings just within feet of hitting the ground at a private airport in Texas. The plane, which had recently been converted from a passenger plane to a freighter aircraft by a private company, was on a test flight when the pilots performed a low pass at Horseshoe Bay Resort Airport, according to the FAA, which is investigating the incident. Video shows the plane's right wing close to hitting the ground as it flies over the runway. FlightRadar24 data shows the plane was within 25 feet of the ground. Air traffic control recordings on LiveATC.net captured communication between the plane's pilot and an air traffic controller, where the pilot informs the controller they will be performing a "low approach".

Although the plane had Qatar Airways livery, it was not operated by the airline or its pilots. The aircraft is registered to Jetran LLC, which said the plane was undergoing a final pre-delivery test before being delivered to Qatar Airways to be a part of the airline's cargo fleet. Jetran released a statement saying it was aware of the video circulating online showing a freighter aircraft performing "a low-pass flight in a manner that does not reflect operational standards." Qatar Airways said, "we are aware of a video circulating on social media depicting a freighter aircraft, in Qatar Airways livery, conducting a low-pass. The aircraft in the video is owned by a leasing company and not by Qatar Airways. The aircraft was undergoing a pre-delivery test flight prior to its planned entry into our cargo fleet. The flight was not operated by Qatar Airways and the pilots were not our personnel."

And in August, Airlink decided it would be a good idea to arrange a pregame stunt where two Embraer passenger jets flew low over a sports stadium in South Africa that sparked a major debate over safety risks. Flight tracking service Flightradar24 estimated that the lead jet passed just 41 to 46 feet (12 to 14 meters) above the roof of Cape Town Stadium, with the crowd and the top-ranked rugby teams in the world below. The second jet, which was right behind, flew through a cloud of pink dust that shot up from the stadium roof as part of the pregame show. A video posted on X by Airlink showed the first jet pulling up slightly as it passed precariously close to the outer edge of the curved stadium roof.

Airlink, a sponsor of the ongoing series between the teams, said that the flyby was conducted according to safety regulations. The airline said that it was carefully planned and rehearsed, with the aircraft traveling at around 150 knots (278 kph or 172 mph), when they went over the stadium. Each jet had three senior captains onboard, Airlink said, operating in the roles of a commander, a co-pilot and a safety officer. The jets weren't carrying any passengers.

"Airlink notes the concerns expressed in various social media and online forums regarding yesterday's formation flyby over Cape Town's DHL Stadium," Airlink said on Sunday. "The flight demanded careful planning and rehearsal, as it required navigating at low altitude, at around 150 knots. The South African Civil Aviation Authority and Air Traffic Navigation Services provided valuable guidance, approval and support to ensure a safe flyby."

Some aviation experts took issue with Airlink's assurances, saying the margin for error was too small. "Basically, that lead aircraft... was kind of like dodging over the roof and climbing over the one side and dipping below and then climbing over the other side. That was a little bit uncomfortable," Chris Martinus, president of Aircraft Owners and Pilots Association South Africa, told The Associated Press. He said if "something adverse happens, you just don't have options at that kind of altitude."

Keith Tonkin, an Australian aviation consultant and former military and commercial pilot, said the Embraer passenger jets — which are small to medium jets designed for regional flights — weren't designed or intended for that kind of low-level operation and warned against the precedent, according to an AP report. "The bigger picture is that a benchmark has been established, and others may expect to do something similar, and that's not going to end well."

It's one thing to put on a good show for the match spectators or your social media account. It's quite another to put innocent people at risk just for a PR stunt.

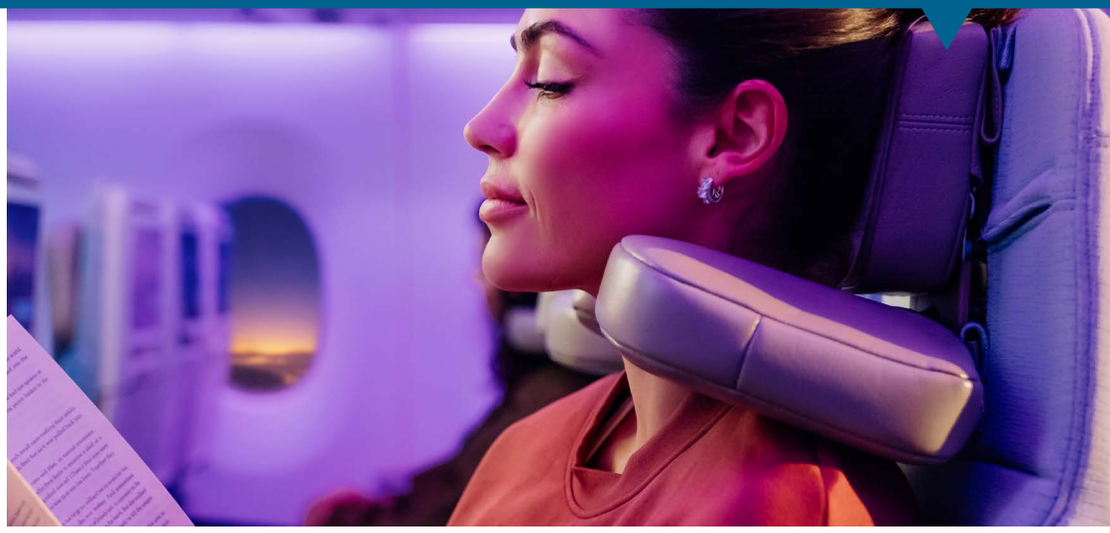
It's one thing to put on a good show for the match spectators or your social media account. It's quite another to put innocent people at risk just for a PR stunt. I hope the parties involved both on the planes and those who set them up face some stiff penalties. Never forget — aviation safety carries a steep and awful price when it is ignored or taken for granted.

Matt Driskill EDITOR
matt.driskill@asianaviation.com



RECARO REBRANDS AAT COMPOSITES UNIT

RECARO is extending the company's brand reach by rebranding AAT Composites to RECARO Composites. This significant milestone for the group aligns with the company's strategic growth in lightweight composite technologies for seating solutions. Located in Cape Town, South Africa, RECARO Composites brings four decades of technical expertise in design, development, and manufacturing of composite components to the RECARO wheelhouse. By incorporating the expertise of RECARO Composites, it allows for future growth in the rapidly evolving aviation industry and positions the company as a partner of choice for seating solutions. This rebrand will also position RECARO Composites for next-generation lightweight solutions for alternative modes of transportation like eVTOLs. This initiative aligns with the missions of the various business units — RECARO Aircraft Seating, RECARO Gaming, and RECARO Rail — under the RECARO Group as a way to accelerate innovation across product portfolios, as composites are known to contribute to improved performance, reduced emissions, and an enhanced passenger experience.



Emirates unveils Economy Class U-Dream headrest

Emirates has unveiled its Economy Class U-Dream Headrest, which the airline calls "a game-changing new seat addition that enables Economy Class customers to experience a whole new level of support and comfort inflight". Backed by a significant investment, installation is already underway across Emirates' fleet. The U-Dream is a multi-way adjustable headrest designed to provide full neck and head support during sleep or relaxation, which will be incorporated onto Emirates Economy Class seats across all Emirates A350's and most of its Airbus A380s and Boeing 777s. As the first airline in the world to introduce it, the U-Dream headrest is already garnering outstanding praise from Emirates customers. As part of Emirates' innovative Z400 seat by Safran Seats, the leather U-Dream headrest is padded and features flexible side wings that can be folded inwards to gently cradle the head and neck. This helps passengers maintain a comfortable sleeping position without their head falling forwards or sideways. The design moves vertically and tilts to align with passengers of different heights and body types, providing personalised comfort throughout the flight. The U-Dream has been independently tested and verified to meet the rigorous aviation safety standards of European Union Aviation Safety Agency (EASA). Emirates is introducing the advanced headrest at scale, giving Economy Class customers an enhanced level of ergonomic support typically associated with premium cabins. Currently already in the sky on 3 x A350 aircraft, Emirates is installing more as quickly as possible. In collaboration with Safran Seats, all Emirates' A350 aircraft will have the U-Dream headrest installed by the end of the year. The U-Dream headrest will also come pre-installed on all 270 Boeing 777Xs that Emirates has ordered. From 2027 onwards, U-Dream headrest installation will also begin on Emirates' retrofitted Airbus A380s and Boeing 777s.

FACC SAYS REVENUES AND EARNINGS CONTINUE TO INCREASE

Interiors maker FACC said in the first half of 2026 it saw revenue increase by 8.6 percent year-on-year to EUR 526.3 million (H1 2025: EUR 484.7 million). At the same time, the operating result (EBIT) improved by 38 percent to EUR 25.3 million (H1 2025: EUR 18.4 million). "We are not only growing in terms of revenue, but at the same time are increasing our profitability in a challenging environment. This shows that our strategy is working. With every improvement in our processes, we are creating the basis for long-term profitable growth and consistently getting closer to our goal of an EBIT margin of over 8 percent," said CEO Robert Machtlinger and CFO Florian Heindl. The positive development is driven by continued high global demand for new commercial aircraft. Airbus, Boeing, COMAC and Embraer jointly plan to deliver approximately 1,700 new aircraft to their customers in 2026. At the same time, the airlines' global order backlog now comprises 18,216 firmly ordered aircraft — a production volume that will keep the civil aviation industry busy at a high level for many years to come.

Business Aviation News



Navair secures unlimited charter access into New Zealand following CAA approval

Navair has received Civil Aviation Authority New Zealand approval under Part 129 for a Foreign Air Operator's Certificate (FAOC). The approval replaces a longstanding restriction that limited Navair to four charter flights into New Zealand per year, with a minimum 28-day separation between flights. Navair can now operate into New Zealand on demand, with no restriction on frequency. The FAOC permits Navair to operate into 13 approved New Zealand aerodromes, including Auckland, Wellington, Queenstown, Christchurch, Hamilton, Napier, Gisborne, Tauranga, Rotorua, Palmerston North, Nelson, Dunedin, and Invercargill. For clients travelling between Australia and New Zealand, the change removes a key planning constraint, with charter flights previously needing to be scheduled well in advance to work within the annual allocation. The approval comes as Navair continues to expand its fleet, with the recent addition of Pilatus PC-24 aircraft, and further aircraft additions planned. Rick Pegus, CEO of Navair, said the certificate represented an important step forward for the business and its New Zealand-bound clients. For a long time, we were working around a hard limit of four flights into New Zealand a year. It meant we were often planning trans-Tasman charters months in advance rather than being able to book clients when they needed us on short notice," Pegus said. "This certificate changes that completely. We can now fly into New Zealand as often as our clients need, across 13 aerodromes across the country. It's a significant shift for the business, allowing us to offer the same flexibility on trans-Tasman routes that we've built our reputation on in Australia."

TEXTRON AVIATION DELIVERS 500TH CESSNA CITATION CJ4

CJ4 delivery-4fd240-original-1786991350.jpg Textron announced the 500th delivery of a Cessna Citation CJ4 series business jet, underscoring more than a decade of customer confidence in the company's largest light jet and setting the stage for the next chapter of the aircraft with the upcoming Cessna Citation CJ4 Gen3. The milestone aircraft, a Citation CJ4 Gen2, was delivered to a customer based in the Philippines, reflecting the platform's global reach. The delivery milestone reflects the CJ4's position as a trusted light jet for customers who need a balance of performance, efficiency and mission flexibility. The aircraft is valued by owner-operators and fleet customers around the world for its versatility across a wide range of missions, from business travel to special mission operations. "The Citation CJ4 has set the standard in its class for more than a decade, and with the Citation CJ4 Gen2 and the upcoming Citation CJ4 Gen3, we're continuing to invest in the innovation, technology and capabilities our customers value most," said Lannie O'Bannion, senior vice president, Sales & Marketing. "As we look to the future, our focus remains on delivering the performance, efficiency and confidence operators need to succeed in an evolving aviation landscape. Reaching 500 deliveries is a meaningful milestone that reflects the strength of the CJ4 platform and the trust customers around the world place in Textron Aviation."

EXECUJET MRO SERVICES AUSTRALASIA EXPANDS FALCON 7X CAPABILITIES

ExecuJet MRO Services Australasia is expanding its Falcon maintenance capability in Sydney, with new investments in specialist tooling, training and technical resources to support upcoming Falcon 7X heavy maintenance work. The company is preparing to undertake Falcon 7X C-checks, with work commencing in October 2026. C-checks on the Falcon 7X are the largest scheduled maintenance events and are due every eight years or every 4,000 cycles, whichever comes first. As part of the preparation, ExecuJet is investing in additional Falcon 7X tooling and ground support equipment required for heavy maintenance checks. The company is also sending an additional two Sydney-based engineers to FlightSafety International in Paris for specialised Falcon 7X airframe and systems training, strengthening the technical depth of its local team. In addition, it is recruiting an experienced Falcon 7X engineer from the Middle East to strengthen its Sydney team. The additional expertise will support the company's expanding Falcon workload and help build long-term in-country capability for operators in Australia and the region.

EVE AIR MOBILITY AND RV CONNEX SIGN MOU FOR AAM REGULATIONS IN THAILAND

Eve Air Mobility and RV Connex, a leading Thai engineering and aerospace company, signed a Memorandum of Understanding (MOU) to work together on regulatory development that will help shape Thailand's Advanced Air Mobility (AAM) industry. Under the terms of the MOU, RV Connex and Eve will jointly collaborate on long term industry and regulatory engagement in Thailand. Bringing together interested public and private stakeholders to establish safe, efficient, and scalable advanced air mobility operations. This collaboration seeks to evaluate future operational scenarios, safety requirements, airspace rules, and infrastructure needs that are specific to Thailand's aviation system. Learning from global AAM standards while also meeting the needs of the Thai market.

HONEYWELL AEROSPACE UPGRADES OMNI TAXI AEREO AW139 HELICOPTER FLEET

Honeywell Aerospace announced that Omni Taxi Aereo has selected Honeywell Aerospace's IntuVue RDR-7000 weather radar system to equip its entire fleet of 33 Leonardo AW139 helicopters. Omni operates approximately 88 helicopters worldwide, with the AW139 representing a significant portion of that fleet. The decision to upgrade every AW139 aircraft — rather than a subset — reflects the operator's confidence in the RDR-7000's ability to strengthen pilot decision-making in demanding offshore conditions, where weather can change quickly and diversion options are limited. The RDR-7000 gives pilots earlier, clearer warning of hazardous weather — including turbulence, hail, lightning and wind shear — by continuously scanning the atmosphere and building a real-time picture of conditions along the flight path.



Bell's first 505 for aerial policing work starts operations in Asia

Bell Textron announced the Aichi Prefectural Police have officially commenced aerial policing operations utilising the Bell 505, marking a landmark moment for aviation in the Asia-Pacific region. The Aichi Prefectural Police is the primary law enforcement agency responsible for maintaining public safety, order, and security within Aichi Prefecture, Japan. Operating under the oversight of the National Police Agency, the force is tasked with crime prevention, traffic management, disaster response, and community policing.

This latest addition builds on a deep relationship between the Aichi Prefectural Police and Bell. The agency has relied on Bell aircraft for years, operating models such as the Bell 206 and Bell 412, and now welcomes the Bell 505 into its fleet. Introduced in 2014 and certified by the Federal Aviation Administration (FAA) in 2017, the Bell 505's performance, reliability, and low maintenance profile have made it an increasingly popular selection for government and security operators seeking a modern, mission-ready helicopter. There are now more than 600 Bell 505s operating in more than 66 countries on six continents, surpassing 300,000 total fleet flight hours.

ARCHER TO ACQUIRE BOEING'S WISK AERO, INSITU AND SKYGRID SUBSIDIARIES

Boeing and Archer Aviation announced the companies have signed definitive agreements in which Archer will acquire Boeing's Wisk Aero, SkyGrid and Insitu subsidiaries. The deal will combine complementary capabilities developed over decades in autonomy, electric vertical takeoff and landing (eVTOL) aircraft, and unmanned aircraft systems (UAS) — creating a groundbreaking end-to-end physical AI platform for aerospace and defence. Wisk, SkyGrid and Insitu have pioneered and incubated core autonomous flight technologies for the future that, in combination with Archer's air taxi, UAS and AI technologies, will bring new and innovative solutions to the market. These companies, with nearly two million combined flight hours, are expected to bring a deep autonomy foundation to Archer's ZEE artificial intelligence platform. This positions Archer to deliver an end-to-end physical AI platform across commercial aerospace, defence and air traffic management that can lead the next generation of aviation.



KOREAN AIR

Southeast Asia's MRO moment: The road to 2035

The race is on to build the engineering talent, technology, scale and resilience needed to capture Southeast Asia's maintenance work in an increasingly competitive market. **Tom King** reports.

Asia-Pacific is on track to account for more than half of global passenger traffic over the next two decades. According to IATA, the region will contribute 41 percent of global passenger growth, adding an estimated 2.4 billion passengers as traffic rises from 1.7 billion in 2024 to 4.1 billion by 2044. That leap will see more aircraft flying more hours, requiring more checks, engine inspections and, ultimately, a surge in demand for maintenance, repair and overhaul (MRO) across Asia.

But traffic growth and MRO capacity may not necessarily keep pace with each other. Asian carriers can probably order aircraft faster than the industry can develop skilled engineers, add hangar space and expand engine maintenance facilities.

That in turn will put further pressure on an MRO system already grappling with engine overhaul bottlenecks, spare-parts shortages and limited capacity. The challenge is particularly acute because much of the region's fast-growing intra-Asian traffic will be served by single-aisle aircraft powered by latest-generation engines. It ultimately begs the question of whether Asia's MRO sector can keep pace.

Meeting the challenge will require more than adding more hangars. Airlines, MRO providers, regulators and technology partners will need to work more closely to strengthen supply chains, develop engineering talent and adopt technologies and processes that improve efficiency without compromising safety or reliability.

It will also require greater cooperation across aviation markets developing at very different speeds. Established MRO hubs can help by building capabilities in emerging markets, transferring skills and technical expertise and developing maintenance centres closer to where Asia's future fleet growth will occur.

Regulators, meanwhile, will need to ensure standards and oversight keep pace as the MRO ecosystem becomes increasingly interconnected across Southeast Asia.

The issue is not simply whether Asia can build enough MRO ca-

◀ *South Korean flag carrier Korean Air also believes AI-enabled automation and predictive maintenance will have a profound impact on Asian MRO operations.*

pacity, but whether it can build the right capacity for the decades ahead. That means combining investment and workforce development with smarter maintenance practices, new technologies and more sustainable operations.

How effectively the industry prepares itself to meet these challenges will determine whether MRO becomes an enabler of Asia's aviation expansion, or turns out to be one of its biggest constraints.

THE DIGITAL HANGAR

In many respects, MRO is almost an ideal artificial intelligence (AI) use case: enormous quantities of operational data, repetitive inspection processes, expensive downtime and considerable value from predicting component failure before an aircraft needs to be taken out of service.

Singapore-based Alton Aviation Consultancy Director Joshua Ng says: "AI-enabled predictive maintenance is likely to have the broadest impact on MRO operations over the next decade, particularly when combined with real-time aircraft data and increasingly integrated maintenance-planning systems. The value of AI extends beyond the automation of individual maintenance tasks, its greater potential lies in improving decision-making across the maintenance process."

South Korean flag carrier Korean Air also believes AI-enabled automation and predictive maintenance will have a profound impact on Asian MRO operations over the next decade.

"Korean Air is actively leading this transition. In predictive maintenance, we manage an in-house solution alongside global platforms like Boeing AHM and Airbus Skywise Fleet Performance+. Leveraging AI-driven data analytics, we successfully prevented over 100 potential flight disruptions in 2025 alone," a company spokesperson told *Asian Aviation*. "Furthermore, our upcoming Engine MRO Centre in Unbuk is designed entirely as a 'Smart Factory.' Supported by a dedicated IT system, this facility will feature automated warehouse systems linked directly with production execution and RFID real-time tracking, which includes big data analysis to enhance precision and efficiency," they added.

Mahesh Kumar CEO of Asia Digital Engineering (ADE), the Malaysia-based MRO company that grew out of AirAsia's engineering operation, says the future of MRO is increasingly digital, and the industry must continue to evolve to keep pace.

"Technology, data analytics and digital platforms are transforming the way aircraft maintenance is performed, and the workforce of tomorrow must be equipped with both technical and digital capabilities. As MRO continues to become more connected and data-driven, companies must invest in continuous learning to ensure their people are prepared not only for today's requirements, but also for the future of aviation," he says.

Across Southeast Asia, AI is being rapidly adopted into MRO, but the biggest obstacle to deploying it at scale may not be the technology. It may be who owns and controls the data that makes AI such a valuable tool.

Airlines operate the aircraft, OEMs manufacture them, engine makers generate performance data, MRO providers maintain them, software companies analyse the information, and lessors own much of the global fleet. So whose data is it?

This question is becoming a significant commercial battleground. Predictive maintenance and advanced AI depend on large, high-quality datasets, yet much of that information remains fragmented or protected as proprietary intellectual property. AI it seems, could therefore advance faster than the industry's willingness to share data.

Regulation adds another challenge. Aviation in Southeast Asia cannot adopt Silicon Valley's "move fast and break things" mentality when safety and accountability are paramount. Regulators must therefore understand where AI assists engineers, where it makes decisions, and ultimately who authorises and is responsible.

Looking toward 2035, the pace at which AI reshapes MRO across Southeast Asia may therefore depend less on advances in the technology itself, which are inevitable, and more on how quickly the industry can resolve questions around data ownership, access and crucially, trust.

GLOBALISATION TO DOMESTIC RESILIENCE

After a succession of shocks, from Covid and the supply-chain dislocations that followed, and for some still lingers, to an increasingly fraught geopolitical backdrop, the case for a resilient domestic Southeast Asian MRO supply chain capability has moved from an operational consideration to a strategic imperative.

A Southeast Asian aviation supply chain does not have to mean a single, self-contained ecosystem. A more likely model is an interconnected regional network, with different markets building on their respective strengths.

Singapore already leads in sophisticated engine and component work, while Malaysia and Thailand are expanding maintenance capacity. Indonesia, the Philippines and Vietnam, meanwhile, are looking to turn their large labour pools and growing aviation markets into deeper domestic capabilities.

Vietnam offers a clear example of how quickly that capacity is taking shape. In June 2026, HAECO agreed to form a joint venture with Sun Group, Toyota Tsusho and Japan Airlines to develop a US$360 million aircraft maintenance facility at Van Don International Airport. The 170,000-square-metre complex is expected to begin operations in late 2028. At its centre will be a four-bay widebody hangar, with flexibility to accommodate narrowbody aircraft.

HAECO expects the project to create more than 1,000 skilled jobs and has begun training Vietnamese recruits at its facilities in Xiamen. The operation is also expected to incorporate digital processes and AI-enabled applications, building technical capability alongside physical capacity.

As Southeast Asia's fleets expand towards 2035, MRO investment



◄ *HAECO formed a venture to develop a US$360 million aircraft maintenance facility at Van Don International Airport.*



▲ *EirTrade believes USM parts will prove vital to Southeast Asia's MRO sector.*

is increasingly about building domestic engineering expertise, reducing reliance on distant maintenance centres and capturing work that has historically flowed to established aviation hubs.

According to Johnson Chen, sales and business development manager Asia at EirTrade Aviation, over the next decade, closer engagement between independent Used Serviceable Material (USM) integrators, airlines, and MRO infrastructure could also prove vital to building Southeast Asia's circular-economy resilience.

"As engine maintenance becomes the primary cost driver across Asia, access to high-quality, fully traceable USM is transitioning from a cost-saving alternative to an operational necessity, allowing airlines to optimise engine life by specifying the target build during a shop visit. This increased demand for USM means we are likely to see an expansion in the number of logistics centres, aircraft dismantling facilities, and aviation free-trade zones across the region, enabling supply chains to shift toward localised repair, storage, and distribution," Chen said.

But expanding capacity does not guarantee Southeast Asia will capture a greater share of Asia's maintenance work. Capacity is being built elsewhere, with India and China in particular adding to the competitive equation.

Korean Air expects the balance of MRO activity across Asia to shift considerably over the next decade.

"While our specific long-term projections to 2035 remain fluid, we anticipate a profound shift in Southeast Asia's market dynamics over the coming decade," the airline says. "Historically a primary destination for regional maintenance, Southeast Asia will face new pressures as India rapidly strengthens its domestic capabilities."

"With major infrastructure coming online, such as Air India's Bengaluru facility and the new LEAP maintenance plant in Hyderabad, we expect a notable reduction in the MRO volume that traditionally flowed into Southeast Asia," Korean Air says. "This will alter regional dynamics, shifting demand internally within India while increasing competition among established Southeast Asian hubs as new facilities, such as SIAEC's hangars in Malaysia, begin to scale their operations."

The opportunity for Southeast Asia, therefore, is not simply to build more hangars, but to ensure new facilities can also compete for increasingly contested maintenance work.

Korean Air itself is part of that build-out, constructing what it describes as "the largest engine maintenance cluster in Asia" at Unbuk in Incheon, targeted to begin operations in 2027.

China looks likely to present another competitive MRO pull factor. Bill Chen, regional sales director, Landing Gear (Asia-Pacific) at aircraft parts trading, leasing and asset management firm APOC Aviation, believes that by 2035 China's MRO industry will have developed into a leading, self-sufficient regional service hub, driven by expanding domestic fleets and the mass operation of COMAC commercial jets.

"The market will sustain stable growth with full localisation of airframe, engine and component overhaul capacity across major industrial clusters. Digital twin, AI predictive maintenance, and green overhaul technologies will become standard operational tools," Chen says.

He also points to Hainan, which China has established as a special free trade zone and which is already attracting Southeast Asian airlines for airframe and engine maintenance. Chen believes it could become a major maintenance hub by 2035.

"Despite challenges such as talent gaps and international airworthiness coordination barriers, China will secure top-tier global standing in aviation maintenance, forming a closed industrial loop integrating aircraft manufacturing and full-life-cycle MRO services," he says.

THE HUMAN BOTTLENECK

This simultaneous rush for capacity is putting Asia's MRO workforce under growing strain. Korean Air expects competition for skilled maintenance personnel to intensify as new facilities open, driving wage pressures and making the shift towards automated and AI-assisted MRO an operational imperative.

"Concurrently, to address these workforce and cost pressures, we are optimising our operational portfolio. By outsourcing routine

maintenance tasks while internalising high-value, complex engineering capabilities, we can effectively improve profitability while accumulating critical technical know-how in-house," Korean Air says.

Alton's Ng says the biggest challenge will be scaling MRO capacity and capability quickly enough to keep pace with demand. "This extends beyond any single issue and brings together workforce availability, supply-chain resilience, engine-shop capacity, infrastructure and the changing technical requirements of the fleet. Over the longer term, however, workforce development may become the most important constraint on how much of that demand Southeast Asia and the broader APAC can capture locally. Building physical capacity can often be achieved more quickly than developing experienced licensed engineers, technicians and specialists, with a projection of approximately 120,000 aviation technicians required within APAC over the next 10 years."

Mahesh Kumar at ADE meanwhile points out that while the APAC region continues to produce highly capable aviation professionals, the pace of industry growth is now exceeding the rate at which experienced talent is entering the workforce.

"This is particularly evident as airlines expand fleets, aircraft utilisation increases and more maintenance work is being performed within the region. The challenge is less about attracting interest in aviation and more about accelerating the development of qualified, licensed personnel without compromising safety or quality."

"Our hiring strategy is closely aligned with our expansion plans. As we continue to grow our maintenance capacity across Malaysia and internationally, we are recruiting strategically to ensure the right talent is in place as new facilities come online. Over the next few years, we expect to hire several hundred additional maintenance personnel across our network, with recruitment phased alongside operational growth," he adds.

Taken together, these forces point to something broader than a straightforward expansion of Southeast Asian MRO. Asia's maintenance map it seems, must be remodelled. Southeast Asia is building greater domestic capability, but so are its competitors in China, India and South Korea.

The race to meet Southeast Asia's MRO demands in 2035 will not simply be about adding hangars or expanding capacity. It will be about who can assemble the right combination of skilled talent, advanced technical capabilities, digital infrastructure, regulatory certification, resilient supply chains and operational scale to keep more maintenance work within the region.

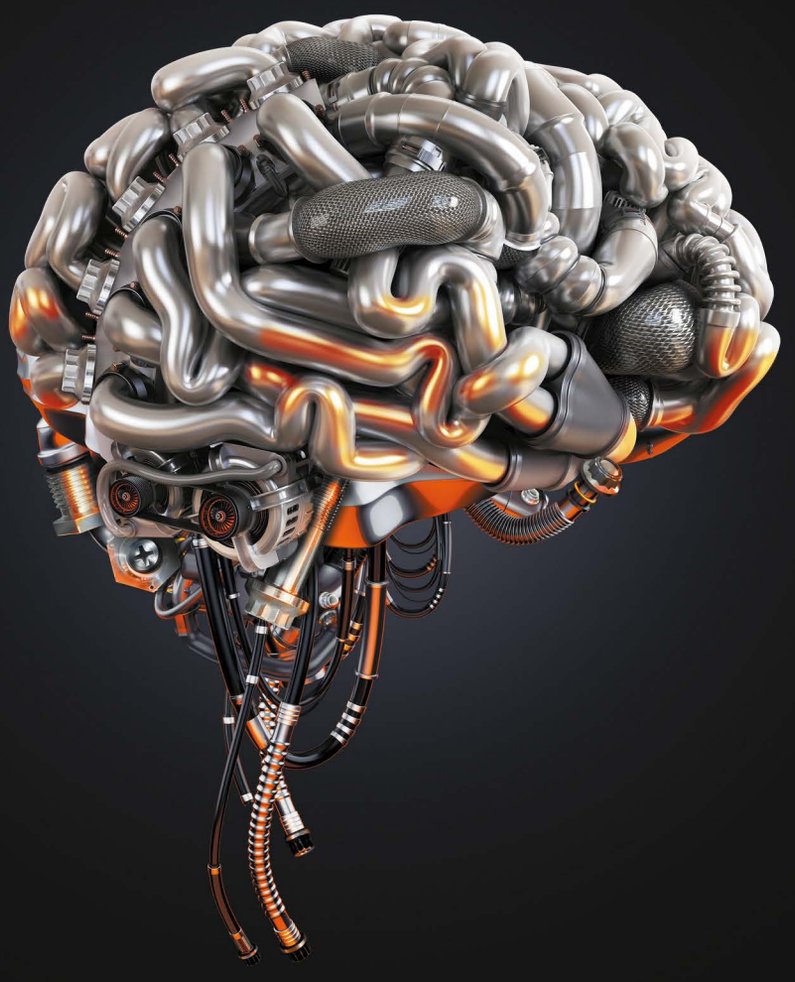
Just as importantly, it will be about who can deliver the turnaround times, reliability and cost competitiveness needed to win business not only from Southeast Asia's rapidly expanding domestic airline fleets, but from operators across the wider global aviation market. ✈

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ROLLS-ROYCE

More choice or exclusive deals?

Aircraft OEMs are looking to reshape this model and structure new agreements that give them a share of ongoing aftermarket revenues while engine makers are looking for ways to share the enormous risks that come with developing clean sheet engines. **Michael Doran** reports.

Engine makers, such as Rolls-Royce, Pratt & Whitney, GE and CFM International, struggle to recover the development costs through direct sales of engines and increasingly they rely on long-term maintenance contracts to produce profits.

These power-by-the-hour agreements give operators certainty around their maintenance costs and are rivers of gold for the OEMs, so long as the engines keep the aircraft in operation.

In the main, aircraft manufacturers, such as Airbus and Boeing, have made their money from selling new aircraft, with maintenance usually done by the airline operator or a growing band of third-party providers.

Aircraft programs that offer a single choice of engine, such as the A350 (Trent XWB) and 737 MAX (CFM LEAP-1B) do provide some degree of certainty for engine OEMs, while those that provide choice, such as the A320neo (P&W GTF and LEAP 1-A) and the 787 (Trent 1000 and GEnx) fragment the market.

The upcoming battle between Airbus and Boeing for a new narrow-body gives all parties an opportunity to set new agreements in place,

◀ *Rolls-Royce plans to use UltraFan engines on narrowbody aircraft.*

with Airbus Commercial CEO Lars Wagner telling analysts: "There's probably a once-in-a lifetime opportunity to rebalance the business model and to participate in the three to four decades of aftermarket."

SHARING THE RISK

Rolls-Royce has almost fully recovered from the reputational and financial costs from the issues of its Trent engines and wants to return into the narrowbody market. The company walked away from this lucrative market in 2012 when its sold its stake in the International Aero Engines (IAE) consortium, makers of the V2500 engine that powers Airbus A320ceo variants.

In February Rolls-Royce unveiled a concept of its UltraFan 30, a 30,000 pound thrust-class geared turbofan derived for its broader UltraFan architecture which was originally developed for widebody applications. With ground testing expected to begin around 2028 the UltraFan 30 fits in neatly with new narrowbody plans at Airbus and Boeing.

CEO Tufan Erginbilgic said the company had already spent more than £1 billion (US$1.36 billion) on the UltraFan project and that the technology puts it in a strong position for the next generation of narrowbody aircraft. With development costs of around £3 billion (US$4 billion) it's not surprising that Erginbilgic is looking for partners, including among the engine OEMs and Airbus or Boeing.

OFFERING CHOICE

A downside of exclusive engine deals is when an engine has significant performance issues, such as the widely publicised problems with Pratt & Whitney's GTF, that leave aircraft grounded or parked as gliders waiting for new engines to be delivered.

Perhaps, the clearest illustration of that has been on Boeing's 787 Dreamliner, launched in 2004, which offered airlines a choice between the Rolls-Royce Trent 1000 and General Electric's GEnx powerplant. The Dreamliner programme suffered many delays and had a troubled entry into service but over the last decade the choice of engines has been a tale of mixed fortunes.

The first 787 entered service with Japan's All Nippon Airways in 2011 fitted with Trent 1000 engines and Air New Zealand also chose Rolls-Royce engines when it launched 787 services in 2014. Both airlines endured years of durability issues with these engines and while ANA has stuck with Rolls-Royce, Air New Zealand switched to GE when it ordered 10 new Dreamliners in 2019.

On the other hand, Japan Airlines opted for the GEnx when its 787's entered service in 2012 and by 2024 it had accumulated more than three million GEnx engine flight hours with the airline saying the engine had proved reliable and fuel efficient. The GEnx also had some entry into service issues but overall it has proven more reliable and durable than the Trent 1000 engines.

If Boeing had selected either engine as the sole power source the outcome for the 787 would have looked entirely different, particularly for Air New Zealand which has seen more than half its Dreamliners grounded for extended periods. JAL's prescient decision to go with the GEnx is in stark contrast to how the Rolls-Royce operators have fared and highlights the ups and downs of offering multiple engines on an airframe.

COPING WITH COMPLEXITY

Korean Air has a fleet of around 166 aircraft that includes Airbus A220, A320neo, A330, A350 and A380 aircraft and Boeing 737, 747, 777 and 787 aircraft. Those aircraft are powered by engines from Rolls-Royce, GE, P&W, CFM International and from the Engine Alliance, a joint venture between P&W and GE for A380 engines.

Korean Air began overhauling engines in 1976 and since then it has rebuilt more than 5,000 engines. The airline is currently building Asia's largest engine maintenance facility near Seoul's Incheon airport which will be completed later this year and is scheduled to induct its first engines in March, 2027.

Korean Air currently services six engine types, including P&Ws GTF and PW4000, CFM's 56 and GE's GE90 and will add three more, including the CFM LEAP-1B and GEnx, when the new facility is operational.

Asian Aviation spoke with Korean Air's Ki Hwan Kenny Kim, senior manager of its Engine MRO Business & Planning Team, about the new facility and he said it will boost capacity from the current 100 engines per year to around 360, with further growth for up to 500 engines by 2030. When asked about handling the complexity of all those engine types he added: "We are going to have engines from the major OEMs in-house and in the new shop we will segregate all those lines depending on what product line is being worked on and eventually even for our training process line and order back-up line will have to be segregated."

Supply chain disruptions have played havoc with both engine OEMs and MRO facilities and with so many engine types to consider Korean is looking to streamline its planning, logistics and parts operations in the new facility.

In some parts of the world finding experienced or new technical staff is difficult and with shop capacity soaring from 100 engines a year to more than 500 by the end of 2030 Korean already has a recruitment and training programme in place.

"We are working with the major OEMs, such as Pratt & Whitney and GE to set up for internal engine heavy maintenance programmes and we are also developing training assets for our new site," Kim adds. "We are going to train our existing people, new employees and those who are transferring over from Asiana Airlines and this is already under discussion with the OEMs."

While Korean is investing significantly to protect its own operations it is also adding much-needed expertise and capacity into the global MRO environment. The early onset of durability issues with some new generation engines has seen demand for MRO soar and Korean's new facility will have capacity to service engines from external carriers, which will greatly reduce bottlenecks and long turnaround times. ✈


ADRIEN DASTE

Supply chains remain a problem

Supply chain problems are still keenly being felt by narrowbody operators and MRO companies. *Asian Aviation* Editor **Matt Driskill** looks at the details.

While everyone in the industry says supply chain issues are improving (slightly), engine problems are still causing headaches for airlines, OEMs and MRO providers. The IATA report said at least 648 aircraft last year powered by GTF engines (A320neo, A220, E190/195-E2) were grounded while awaiting engine shop visits and this was the result of an unprecedented ramp-up in new aircraft delivery targets along with production quality issues. "These factors significantly reduced the engines Time On Wing (TOW) to well below industry expectations, in turn creating bottlenecks for engines shop visits," the report said.

Both the LEAP engines from CFM (LEAP-1A for A320neo, LEAP-1B for 737 MAX, LEAP-1C for Comac C919) and the Geared Turbo Fan (GTF) engines from Pratt & Whitney (PW1100G for A320neo, PW1500G for A220, PW1900G for E-190/195-E2) are set to continue their rapid expansion, with annual forecasted delivery targets near 2,500 LEAPs and 1,200 GTFs respectively.

"This ramp up, driven by the ambitious production rates of the 737 MAX and A320neo aircraft families, is unprecedented in the industry, and it has consequences," the report said. The report stressed the problem is serious because the number of commercial aircraft in service (passenger and freighter) is forecast to double between 2024 and 2044 (from 24,730 aircraft in 2024 to a projected 49,210 in 2044). This will increase the aviation sector's exposure to this type of MRO-capacity bottleneck in the event of unexpected production or in-service issues.

"The aircraft order backlog is over 18,000. And the average fleet age has reached a record 15.2 years. Moreover, being short over 5,000 more fuel-efficient replacement aircraft that airlines had counted on, means missed efficiency gains, not to mention higher lease rates and increased maintenance costs. In total, supply chain failures cost airlines at least $11 billion in 2025. Today's higher fuel prices will only make that worse," Willie Walsh, IATA's former director general, said when the report was released.

A more recent IATA report in collaboration with Oliver Wyman, addressed the supply chain challenges and found that it cost the industry more than $11 billion in 2025. The figure is attributed to airlines operating older, less fuel-efficient aircraft, costing them some $4.2 billion; the global fleet is aging, and older aircraft require more frequent and expensive maintenance. This cost airlines about $3.1 billion in 2025; airlines need to lease more engines since engines spend longer on the ground during maintenance. Aircraft lease rates have also risen 20-30 percent since 2019. The additional cost is estimated at $2.6 billion; and airlines are stocking more spare parts to mitigate unpredictable supply chain disruptions, increasing inventory costs by some $1.4 billion.

Engine OEMs are expanding maintenance, repair, and overhaul (MRO) capacity either directly or through partner networks. However, ongoing disruptions in the supply of spare parts are limiting the impact of these measures, and engine shop turnaround times remain longer than normal. Access by independent MRO providers

has also been limited by new "all inclusive" PBH (Power by the Hour) engine service contracts frequently sought by airlines at the early stage of engine programs, restrictive commercial MRO licensing practices from certain OEMs, and insufficient production of piece parts.

The report outlined several actions for the industry to take. These include:

- Increase engine parts availability i) by accelerating the development and approval of new repair instructions to reduce scrap rates of unserviceable parts (either through the OEMs or through regulatory approved instructions such as EASA Part 21 or FAA DER), ii) by extending piece parts production capacity through OEM licensing manufacturing to third parties, and iii) also by facilitating wider access to used serviceable parts recovered from initial engine teardowns;
- Ease the conditions for fair market access for independent MROs to accelerate new capacity development. For example, the Agreement signed between CFM and IATA in 2018 ("IATA-CFM Agreement") and renewed in January 2026 should be widely considered as an industry best practice in this regard;
- Encourage both airlines and lessors, ahead of aircraft / engine acquisition, to secure extended lifelong term access to pre-negotiated spare parts price catalogues (e.g., LLPs, HPT, fan blades, etc.). This could include coverage for future part-numbers evolutions, and capped annual escalations (similar to the product support protection from Boeing PSAA and Airbus SSC applicable to airframe SFE components), with the ability to assign these terms to MROs of their choice, including independent providers. That way, lessors could share such key protections with their lessees and independent MROs;
- Encourage all OEMs (not only engines OEMs, but also airframe components OEMs as well) to adopt fair and best practices for aftermarket programs. For example, by endorsing the same principles as those defined in the IATA-CFM Agreement (in which CFM recognizes the right for customers to choose using FAA/EASA approved non-OEM parts & repairs: PMAs & DER / Part 21). In the IATA-CFM Agreement, it is also remarkable that third-party competing MROs are recognized by CFM as direct beneficiaries of those measures.

The report added that the industry can better navigate supply chain issues by no only securing the availability of parts by combining all available levers on spares and repairs, but also by expanding the pool of MROs to support additional repair capacity. It said OEMs should qualify at least one back-up supplier to produce the same parts via licensing agreements and source parts from engine teardowns to increase the use of USM. ✈

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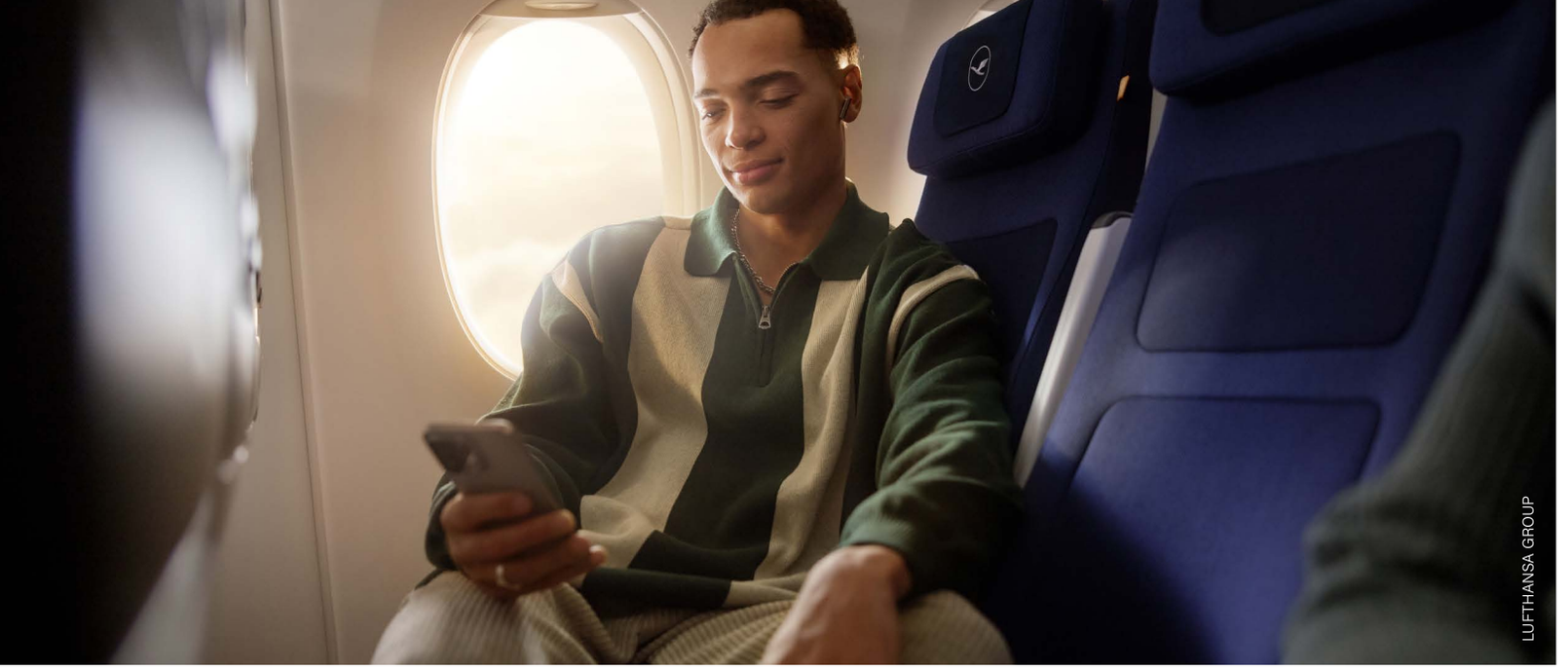
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Always connected

In an "always-on" society where people can connect from wherever and whenever, companies like Bluebox, Starlink and others are proving popular with some passengers. But *Asian Aviation* Editor **Matt Driskill** wonders — is all this really necessary?

I've written before that I'm no Luddite and the technology I have in my humble home office in Cambodia will prove that. I've got still and video cameras, a podcast studio, multiple computers, two TVs that are mostly on all the time, iPads, etc.

But when it comes to flying, I do so without being connected all the time. I don't run a billion-dollar business empire, I'm not hooked on social media 'doom scrolling' (although like most people I do like the occasional cat video) and I simply don't need to be connected 24 hours a day.

But as I was watching one of my TVs recently, I ran across The Ray Bradbury Theater, which, for those old enough to remember, is a sci-fi series that ran from 1985 to 1992. There was a particular episode called *The Murderer* that ran in 1990, according to IMDb, and starred the actor Bruce Weitz of *Hill Street Blues* fame.

In this particular episode, a psychiatrist is summoned to a prison to interview a respectable businessman who went on a murderous rampage. But he didn't kill humans. Instead, he 'killed' the wrist and lapel telephones, computers, music players, fax machines that fit inside a briefcase, talking houses and more that polluted the world with noise. Sound familiar? As the ending of the show draws near, the "murderer" is content inside his prison cell, which is peaceful and quiet with no devices constantly demanding his attention while the psychiatrist who had been treating him slowly starts going nuts with all the technology and noise surrounding him.

So, I'm not exactly the target demographic for airline Wi-Fi providers. If I'm on a 30-45 -minute flight from Singapore to Kuala Lumpur or a 24-hour long-haul journey from Cambodia to the US, I simply go silent in terms of "being connected". If it's a long-haul flight, I watch movies and sleep.

But there are those dreaded content providers or business magnates (and wannabe business magnates) who feel the need to be constantly connected, typing away on their laptops. And for them, companies like Starlink, Bluebox, SkyFive, and more are giving them what they want.

Bluebox Aviation Systems and SkyFive said recently they were going to help airlines get more from in-flight connectivity by turning bandwidth into better passenger experiences and stronger ancillary revenue opportunities. The two companies are targeting low-cost carriers (LCCs) in fast-growing markets like India, China, and Southeast Asia. The companies said those areas were "unconnected", but I would disagree with that. What I would agree with is the companies when they say the Wi-Fi business in the air "is no longer just about having bandwidth available, it's about making money with it".

The companies are combining SkyFive's in-flight connectivity

platform with Bluebox's Blueview in-flight entertainment, retail and passenger engagement platform, "helping airlines unlock more value from connected aircraft and generating tangible profits from digital services". Bluebox will provide the entertainment, advertising, retail and order-to-seat layer across the SkyFive system, delivered either through integration with SkyFive's OpenServer platform, or, where connectivity allows, through Blueview Cloud, Bluebox's ground-hosted digital services platform.

"Airlines are increasingly asking the same question: how do we get more value from connectivity?", said Dougie Brown, head of Account Management and Partnerships at Bluebox. "Passengers expect more personalised, digital experiences onboard, while airlines want clearer commercial returns. Combining SkyFive's connectivity with Blueview gives airlines practical ways to do both."

"Connectivity is nothing without monetisation," said Dirk Lindemeier at SkyFive. "Passengers increasingly expect more personalised, digital experiences onboard, but airlines insist on clear commercial outcomes. Our architecture was designed open from the outset, and working with Bluebox now allows us to bring together connectivity and passenger engagement in a way that gives airlines more flexibility and more opportunity to create value."

Lufthansa Group recently announced it was launching free connectivity using the Starlink Wi-Fi system. The airline group called it the "beginning of a new era" although they are a little late to the party. The company is starting by outfitting its A320neos and plans to rollout the system on 850 aircraft across all of its airlines.

"I am excited to announce the launch of the new Lufthansa Group Wi-Fi on board our group aircraft," said Dieter Vranckx, chief commercial officer of the Lufthansa Group. "With it, we're making high-speed internet an integral part of the travel experience — across all travel classes and on all Lufthansa Group airlines: That is how we understand premium. By 2029, all of the group's approximately 850 aircraft will be equipped with the technology."

One way Lufthansa is making sure passengers don't "murder" the technology is by requiring passengers to wear headphones when playing audio and video content and to refrain from making voice and video calls. They also will not allow people to broadcast live streams from on board the aircraft.

My advice to those passengers who want to always connect and fork over money, go ahead. The airlines will be very happy you've chosen to pay them more on an already expensive plane ticket.

My advice to those on a long-haul flight is to borrow a phrase from Timothy Leary: "Turn on, tune in, drop out". Turn on the seat-back movie channel, tune in a nice movie, and drop out or disconnect from the world for a few hours. You can reconnect with the world when you land. It'll still be there. ✈







Women gain ground in the cockpit and C-suite



From the cockpit to the boardroom, more women are entering aviation's most critical roles. Progress is becoming increasingly visible across Asia-Pacific and the Middle East, driven by industry-wide efforts. **Roetta Wang** reports.

Not long ago, female pilots were a rarity in commercial aviation. Today, more airlines are reporting milestone gains in cockpit representation, alongside a growing number of women taking the controls. A shift is underway in an industry long dominated by men.

In the Middle East, Emirates promoted its first female captains in June, marking a significant step forward for gender representation. In the same month, Thai Airways welcomed its first female pilot to serve as a first officer on a passenger jet, ending the airline's 66-year history of an all-male cockpit.

These milestones are not isolated. India, in particular, has emerged as a standout case. IndiGo, the country's largest airline, commanding around 50 to 60 percent of India's domestic passenger market, now employs more than 1,040 women pilots as of August 2026. While the global proportion of female airline pilots lingers around five percent, women make up 17.5 percent of IndiGo's cockpit workforce, which is more than three times the global average. Air India, the country's second largest airline, is not far behind, with female pilots comprising 16 percent of its cockpit crew.

Together, these figures reflect a national distinction. India boasts one of the highest rates of female pilot representation in the world. According to India's Ministry of Civil Aviation, the number of active female pilots in the country climbed to 3,327 in 2025, pushing wom-

◀ *Clockwise from top left: An unidentified IndiGo pilot; a student at Langley Flying School; Wu Yunjuan from Langley.*

en's share of the overall pilot workforce to around 15 percent—far above the single digits recorded in countries including Canada, Ireland, and the United States.

India's progress is not accidental. The government has expanded access to pilot training by adding new Flying Training Organisations, rationalising costs, and digitising DGCA approval processes. More scholarships and subsidies on flying hours have helped offset the high cost of commercial pilot training, widening the pool of women who can realistically enter the profession. Moreover, decades of efforts to normalise women in technical careers have helped make aviation more attainable for girls.

On a recruitment level, airlines have reinforced those gains with retention policies designed to keep women flying. Inspired by the national "Beti Bachao, Beti Padhao" (Save the Daughter, Educate the Daughter) campaign, IndiGo launched a nationwide awareness initiative, "Save the Daughter, Educate the Daughter; Make her a Pilot", in 2024. By leveraging social media to amplify real-life stories of women pilots and create relatable role models, the campaign aimed to shift public perceptions and position aviation as a credible career path for women.

The airline has also established an exclusive women's Cadet Pilot Programme committing to 25 percent female representation in every cadet batch, introduced flexible rostering and return-to-work schemes for pilots on career breaks, and provided financial sponsorship for women from marginalised communities to train as pilots.

In another regional aviation hub, Hong Kong's flag carrier Cathay Pacific reported that women accounted for 8.3 percent of its pilot workforce by the end of 2024, with a goal to gradually raise that figure to around 20 percent. At the leadership level, the airline has made stronger progress, with women now holding 30 percent of senior positions and achieving equal gender representation on its Executive Committee. To strengthen its female talent pipeline, Cathay has expanded its Diversity and Inclusion framework, established a Gender Equity Network, and developed its Cadet Pilot Programme, which produced more than 77 percent of its current female pilots.

At the industry level, IATA's 25by2025 initiative has given airlines a shared framework for driving change. Launched in 2019, the global initiative aims to improve female representation in the air transport industry by 25 percent, or to a minimum of 25 percent by the end of 2025. Signatories are committing to boosting female representation in both senior positions and roles where women are traditionally under-represented, typically in the flight deck.

The results, while measured through voluntary reporting, point to consistent industry-wide effort and progress. Between 2021 and 2023, signatories recorded a 37 percent increase in women in flight deck roles and a 24 percent increase in women in senior positions.

In the latest data reported by 142 organisations as of the end of 2024, women account for 41.6 percent of the global aviation workforce and 31.4 percent of senior management roles. The flight deck remains the least diverse segment: based on responses from 95 airlines, women account for just 6.2 percent of total flight crew.

The International Civil Aviation Organisation has noted that women remain significantly underrepresented in many roles. Yet women's participation in aviation is linked to improved safety, performance, and profitability. A more diverse workforce can solve complex problems, enhance innovation, and better meet industry demands.

The case for change is also being reinforced by a looming industry-wide challenge. Asia-Pacific will lead passenger traffic growth over the coming decades, and the demand for new pilots is rising sharply. According to training and aviation services company CAE, the region will require the largest number of new pilots of any region in world but the supply of locally experienced pilots remains limited. With women accounting for just a fraction of today's pilot workforce, a vast pool of talent remains almost entirely untapped. For airlines facing a generational recruitment challenge, bringing more women into the cockpit is not only a matter of equity, but also a strategic necessity.

Yet despite growing awareness of why it matters, real obstacles remain across recruitment, training, and retention. KS Bakshi, Group Head of Human Resources at IndiGo, cited the high cost of pilot training, socio-economic norms, and inflexible career pathways as factors that have long constrained the female talent pipeline.

"More critically, lifecycle-related challenges, particularly maternity and caregiving responsibilities, have often led to career discontinuity, resulting in the loss of highly trained, safety-critical talent," he said.

The pipeline problem begins earlier than the recruitment stage. Wu Yunjuan, an authorised person for flight crew licensing and authorised examination invigilator of Transport Canada, Principal of Langley Flying School's China division, has spent years working in pilot training.

At her school in Canada, 26 of 231 enrolled students are women. The percentage is already above many programmes, but still a figure that reflects how thin the female pipeline remains at entry level.

In Wu's view, the problem is not capability — it is perception. She said flight training makes no distinction between men and women. "Flying is only judged on technical skills and safety. And women can do as well as men," she said.

What holds women back, she argues, comes down to traditional bias. "It is not because women are not good at flying, it is because the industry has not yet prepared an environment where women feel confident and comfortable to fly," Wu said.

Organisations such as Women in Aviation International and its Asia chapters are working to close that gap through early outreach, role models, and practical career pathways. Programs like Girls in Aviation Day introduce young girls to the profession through hands-on events and school activities, while scholarships and mentoring help move participation from inspiration to early training.

Wu believes that those already in the industry have a responsibility to speak up. "The more young women understand what a career in aviation truly looks like," she says, "the more likely they are to be inspired, and to make flying their goal." ✈



AIRBUS

Majors moving in to India's rotor market

India finally appears to be serious about developing its rotary sector. Top manufacturers such as Airbus and Leonardo are setting up in India in collaboration with India's biggest corporations as the focus shifts from state-owned HAL. **Shelley Vishwajeet** reports.

Lately there has been a lot of buzz around the rotary industry in India. In February this year, Tata Advanced Systems Limited (TASL) inaugurated India's first private-sector helicopter final assembly line for the Airbus H125 at Vemagal in the southern Indian state of Karnataka. The facility was inaugurated virtually by the Indian Prime Minister Narendra Modi and French President Emmanuel Macron.

TASL described it as a watershed moment for 'self-reliant India' in aerospace, marking the first time the Indian private sector will undertake manufacturing, integration, testing and maintenance of a sophisticated rotary-wing platform in India. By building the civil H125 and potentially its military variant H125M, Tata and Airbus are ensuring that Indian operators have immediate access to world-class technology with localised maintenance and lifecycle support, maximising helicopter availability. The first 'Made in India' H125 is expected to be delivered early 2027, and will also be available for export across the South Asian region.

"We are proud to establish the H125 Helicopter Final Assembly Line, a first in the private sector in India — a landmark step in the nation's journey towards self-reliance in aerospace and defence," said N Chandrasekaran, chairman of Tata Sons.

"The inauguration of the H125 FAL is a defining step towards India's civil and defence sovereignty when it comes to vertical lift capabilities. By establishing this facility with the Tata Group, Airbus is offering the Indian market a versatile and competitive platform with unrivalled performance that is 'Made in India' and tailored for missions across the country's unique topography," said Bruno Even, CEO of Airbus Helicopters.

▲The H125 series is the world's best-selling single-engine helicopter and also the most popular helicopter in India with over 100 units.

The H125 series is the world's best-selling single-engine helicopter and also the most popular helicopter in India with over 100 units. It also happens to be the only helicopter to land on Mount Everest when French test pilot Didier Delsalle became the first and only person to pilot and touch down an Airbus H125 (then called the Eurocopter AS350 B3) atop Mount Everest on 14 May 2005.

Adani Defence & Aerospace, the flagship defence and aerospace arm of Adani Enterprises, and Italian manufacturer Leonardo have announced a strategic partnership to develop, manufacture and sustain a helicopter manufacturing ecosystem in India. The programme primarily focuses on military requirements and supporting Leonardo's AW169M and AW109 TrekkerM rotors and could pave the path to be extended to the civil domestic demand. According to Adani Defence, the ecosystem is designed to ultimately scale up

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and address domestic civil and emergency aviation requirements.

"This alliance with Leonardo is a pivotal stride toward a resilient, future-proof helicopter ecosystem in India," Jeet Adani, Director, Adani Defence & Aerospace said. Gian Piero Cutillo, managing director at Leonardo Helicopters, said: "We're extremely pleased to join forces with Adani to provide our contribution to India's vision for an even stronger and growing role of their rotorcraft industry, and to enable the country to access the level of modern technology and operational capability it deserves."



▲ *An AW109 Trekker in an EMS configuration.*

India's huge geography, diverse terrain, latent demand and a vintage legacy of manufacturing helicopters makes it an ideal market for helicopter operations. India's total count of civilian helicopters is around 250-275, less than one percent of global number. This is despite the fact that India started manufacturing helicopters back to 1962 when the state-owned Hindustan Aeronautics Limited (HAL) signed a license agreement with the French manufacturer Sud-Aviation (now Airbus Helicopters) to produce the Alouette III. The locally produced version, named the Chetak, was delivered beginning 1965. Since then, indigenisation has happened but helicopter manufacturing remained the sole preserve of HAL. Private participation remained a strict no-no for many decades.

Most civilian helicopters in India are deployed to support oil exploration and to transport religious tourists to shrines in the high Himalayas. Surprisingly or not so surprisingly, unlike Brazil, Australia or China, India's big corporate houses have shown reluctance in owning helicopters, preferring private or pooled jets. The use of helicopters for medical emergency in the shape of heli-ambulance (HEMS segment) has been growing in the last few years but their numbers remain small at less than 50 because as only very wealthy people can afford it. With speciality hospitals coming up in nearly all 28 state capitals, the need to evacuate critical patients to metro areas like Delhi, Mumbai or Bengaluru has reduced the need for helicopters to a great degree. HEMS is being replaced by fast-growing network of expressways, where serious accidents call for immediate evacuation. Helipads at regular intervals are now an integral part of modern expressway designs in India.

Helicopters for local transport and recreational purpose has not taken off in India for multiple reasons, despite the fact that the number of wealthy people who can afford personal helicopters has grown exponentially in the last two decades. For example, a relatively new city like Gurugram, in the vicinity of national capital New Delhi, boasts of more than 80,000 millionaire households and a dozen billionaires. Compare this to a city like Sao Paulo, which has far fewer millionaires but has twice the number of civilian helicopters compared to India. India also happens to be among very few countries in the world where military helicopters outnumber civilian ones. It is in the same league as South Korea, Saudi Arabia and Pakistan. In nations such as Australia, Brazil, Canada, China, France, Japan, Russia, UK or the USA, civilian helicopters outnumber military models by a significant number.

So what has held the industry back in India? Restrictive government regulations, overlapping regulatory jurisdictions, lack of dedicated heliports and high acquisition and operational costs have been among the main reasons for helicopters not taking off in India despite the potential, said Rishikesh Mishra, secretary general of the Centre for Aviation Policy and Research (CAPSR). He explains that the government classifications generally prohibit civilian helicopters from landing outside of strictly regulated airfields or designated helipads, limiting their utility for point-to-point travel. An infrastructure deficit has been another major drawback. India lacks a robust network of civilian heliports and urban landing infrastructure. India has only one fully operational heliport in the entire country at Rohini in New Delhi. Most major airports do not allow simultaneous helicopter and fixed-wing aircraft operations. High import duties and restrictive helicopter financing have been other inhibiting factors.

Historically, as a result of decades-long socialist mind-set, India had treated privately owned copters as niche or luxury VIP assets rather than mainstream utility. Sunny Guglani, head of Airbus Helicopters India and South Asia has underscored this point quite well.

"India's sluggish helicopter market has been primarily due to a lack of helicopter mindset, where both demand awareness and supportive policy frameworks have not kept pace with India's needs."

India's new civilian helicopter policy, introduced to boost regional air connectivity and tourism while eliminating landing charges and parking deposits at government owned airports for helicopter operators, centralised processing of approvals for helicopter operations, ease of owning rotors while eliminating the monopoly of state-owned HAL, does come as a breath of fresh air. But unlocking India's helicopter market will require not just infrastructure and policy reforms, but a broader shift in mindset, recognising the helicopter as a critical, versatile connector across the length and breadth of the nation, points out Mishra. ✈

AAV Events Calendar

Send event submissions to: **info@asianaviation.com**



22-24 SEPT 2026

MRO Asia Singapore
+1 347 751 8692
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10-11 NOV 2026

MRO Australasia Brisbane
+1 347. 51 8692
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28-29 OCT 2026

MRO Europe Amsterdam
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Amy.White@informa.com

23-28 FEB 2027

Avalon Airshow Victoria
airshow.com.au

ASIAN Aviation

The new website is now live.

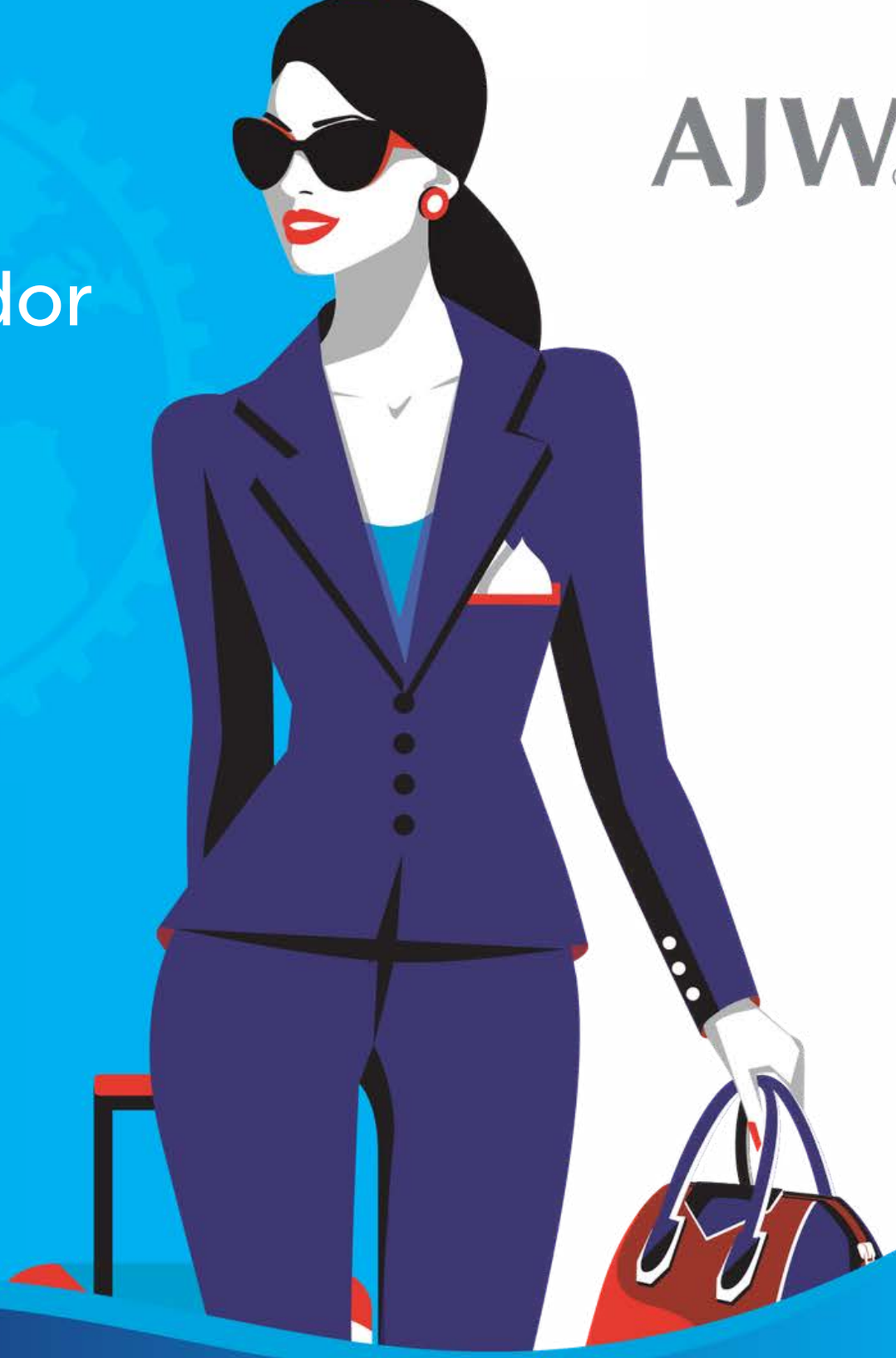


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