

MRO^{360°}



STOP

The Sunset of Paper Records

Digitalisation of Aircraft Records

Maintenance

APUs and the challenges they bring

Information Technology

The Importance of Data Management

Innovation

Can One trust AI data management?



Dear Readers,

Welcome to the June issue of our MRO 360° magazine.

Digitalisation and artificial intelligence (AI) have been dominant topics for years and now have a very strong foothold in our industry. No maintenance company can afford to ignore their influence anymore.

In this issue, we focus on the digitalisation of aircraft records. Yes, paper documents and logbooks etc., still exist—rooms remain filled to the brim with boxes full of aircraft-related files. Anyone who has ever handed over an aircraft knows how painful it can be to rummage through maintenance documents. Today, modern applications now help to store documents in an orderly and secure digital format.

Can artificial intelligence help manage the mass of data we have? Can we really do without humans for the most part?


In this issue, we also report on the challenges of APU maintenance and include a quick-fire Q&A with Gilles Mercier, CEO of Barfield, whose company just celebrated its 80th anniversary.

I hope you enjoy reading this issue.

Peter Jorssen
Publisher

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EDITORIAL

Peter Jorssen

Publisher

peter.jorssen@avitrader.com

Heike Tamm

Editor-in-Chief

heike.tamm@avitrader.com

David Dundas

Content Writer

david.dundas@avitrader.com

Volker Dannenmann

Graphic Designer

volker.dannenmann@gmail.com

ADVERTISING & CONTRIBUTION ENQUIRIES

Tamar Jorssen

Central, North & South America

tamar.jorssen@avitrader.com

Phone: +1 (778) 213 8543

Malte Tamm

Europe, Middle East & Asia

malte.tamm@avitrader.com

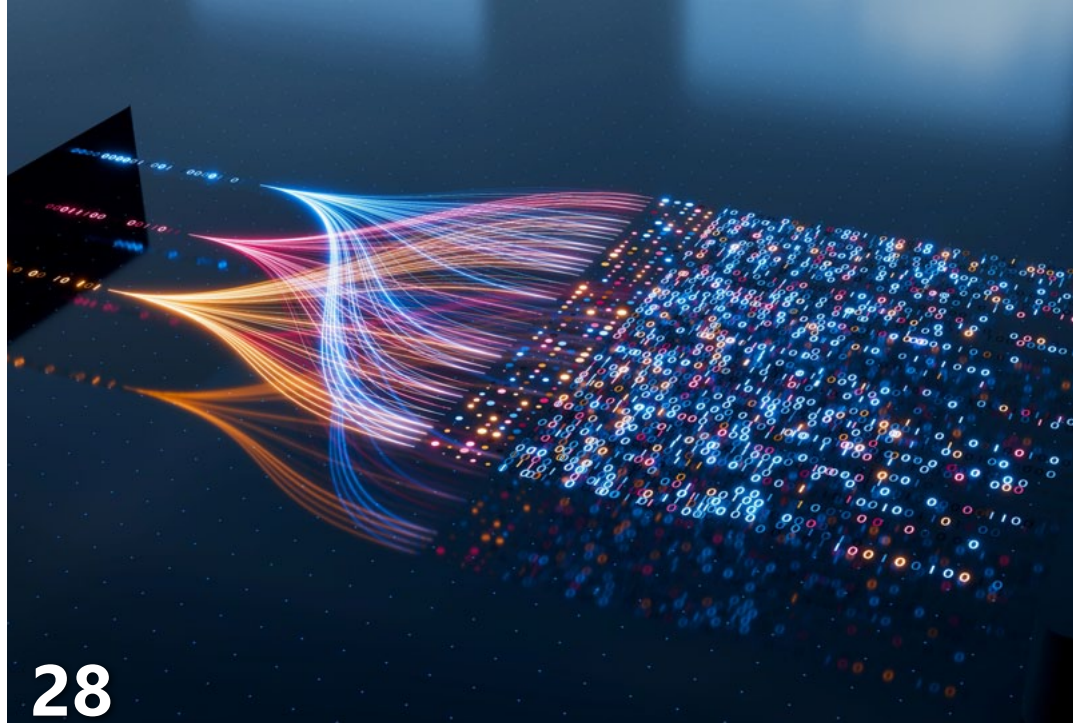
Phone: +49 (0)162 8263049

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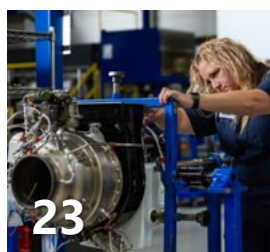


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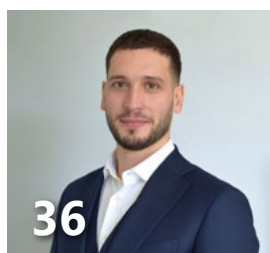
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GA-ATS and AEE partner to advance Do228 NXT avionics systems

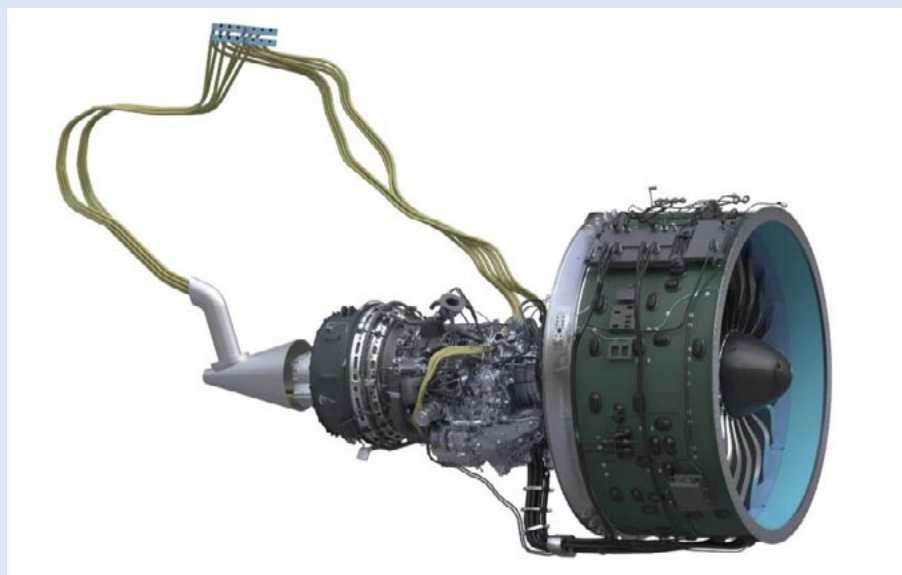
General Atomics AeroTec Systems GmbH (GA-ATS) has reported a new partnership with German avionics specialist Aircraft Electronic Engineering GmbH (AEE) for the redevelopment of two critical systems on the next-generation Do228 NXT special mission aircraft. The companies have signed a contract to redesign the engine interface unit (EIU) and the central warning system (CAWS), marking a continuation of their long-standing collaboration. The EIU acts as a vital bridge between the engines and the aircraft management system, processing and relaying key engine data, flap positions and fluid levels to cockpit displays. The CAWS, on the other hand, ensures that any warning messages are reliably delivered to the cockpit. Additionally, AEE continues to supply various smaller electronic components for the Do228, including thermal controllers, relay boards, and voltage and current indicators. AEE has previously developed the EIU for the earlier Do 228 NG model launched in 2010. However, with some components now obsolete, a full redesign is necessary. This provides an opportunity to enhance the unit's performance with several technical upgrades. AEE's selection for the task is based on its decades of expertise in aviation electronics, particularly in engine interface technology. The new EIU will feature an additional A429 input to support integration with a future fuel system and manage pressure refuel logic. It will also emulate speed switches, eliminating the need for separate components and streamlining installation. Furthermore, improved analogue sensor calibration will ensure better accuracy, prevent signal drift and reduce system errors. Both systems are being developed to meet stringent Design Assurance Level B standards, with production and maintenance carried out under AEE's EASA Part 21G and Part 145 certifications. GA-ATS Managing Director Erik Bollen emphasised the importance of working with trusted local partners to ensure a reliable supply chain as production of the Do228 NXT moves forward.



Rendering of Do228 NXT aircraft

© GA-ATS

GKN Aerospace delivers first high-voltage EWIS for SWITCH project



SWITCH hybrid-electric GTF engine

© Pratt & Whitney

GKN Aerospace has successfully completed and delivered the first high-voltage electrical wiring interconnection system (EWIS) for the Clean Aviation SWITCH project. Developed at GKN Aerospace's site in Papendrecht, the Netherlands, the EWIS is designed to support megawatt-class hybrid-electric

propulsion and will undergo system integration testing later this year at Collins Aerospace's advanced electric power systems facility, The Grid, in Rockford, Illinois. It will subsequently support hybrid-electric Pratt & Whitney GTF™ engine demonstrator testing at EME Aero in Poland. The SWITCH project

is a significant international collaboration aimed at advancing aircraft propulsion technologies to improve the efficiency and performance of future short- and medium-range aircraft. The project is led by a consortium that includes MTU Aero Engines AG, RTX businesses Pratt & Whitney and Collins Aerospace, Airbus, and GKN Aerospace, with support from the European Union through the Clean Aviation Joint Undertaking. GKN Aerospace holds responsibility for the design, assembly, testing and delivery of the high-voltage AC wire harnesses — a key component in enabling safe and efficient power distribution in hybrid-electric aircraft. These next-generation aircraft are essential to the aviation industry's goal of achieving more sustainable flight. As power requirements grow from hundreds of kilowatts to multiple megawatts, innovative high-voltage distribution systems become critical. With decades of expertise in EWIS technologies for both civil and defence applications, GKN Aerospace is helping to lay the electrical foundation for the future of aviation.

Deutsche Aircraft unveils G5000 PRIME flight deck for D328eco at Paris Air Show

At the 2025 Paris Air Show, Deutsche Aircraft revealed the integration of Garmin's advanced G5000® PRIME flight deck into its next-generation D328eco regional turboprop. This major update brings cutting-edge avionics to the 40-seat aircraft, enhancing its mission to redefine sustainable regional aviation through innovation and operational efficiency. The G5000 PRIME introduces a fully integrated, touchscreen-based cockpit environment, providing pilots with advanced automation, increased situational awareness, and global compliance. With a legacy of over 30,000 Garmin flight decks in service worldwide, this new system is tailored specifically for Part 25 transport aircraft and Part 121 operations, making it



Garmin G5000® PRIME flight deck

© Deutsche Aircraft

ideal for regional air travel. The G5000 PRIME will play a crucial role in delivering a digitally connected and environmentally responsible flying experience. This announcement comes as Deutsche Aircraft transitions from development to industrialisation, marked by the unveiling of its first test aircraft, TAC 1, in May 2025. The D328eco is on track to enter service in the fourth quarter of 2027, reinforcing its commitment to pioneering the future of sustainable regional air mobility.

The way ahead for engine MRO



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The way ahead

DLR and Diehl Aviation join forces to develop advanced civil aviation technology



DLR and Diehl Aviation will jointly research and develop innovative technologies for civil aviation © Diehl Aviation

DLR (Deutsches Zentrum für Luft- und Raumfahrt) and Diehl Aviation have agreed to jointly research and develop innovative technologies for civil aviation, with a special focus on aircraft systems, cabin technologies and supply systems. DLR and Diehl will collaborate to develop and test innovative solutions for the aviation industry. The partners, with many decades of experience between them, will bundle their

strengths and expertise to develop practical, forward-looking solutions together. Their research activities will cover the areas for:

- Developing and testing innovative technologies for aircraft systems, avionics, cabin systems and on-board supplies.
- Researching innovative design and verification methods, especially those related to simulation-based approval processes (validation and verification, virtual aircraft approval).
- Developing joint project formats to more quickly bring technologies from the research stage to application.

The partnership agreement is open-ended and forms the framework for specific research projects to design more efficient cabins and system architecture. DLR and Diehl will combine their strengths to develop solutions for current and future challenges in the aviation industry – from low-emission flights to smart cabin design to the digitisation of development and approval processes.

Air T and Crestone conclude financing agreement with institutional investors

Air T has reported the successful renegotiation of a major financing agreement involving its wholly owned subsidiary, AAM 24-1, LLC. The revised agreement, reached with the company's existing institutional investors, increases the transaction size from US\$30,000,000 to US\$100,000,000, extends the repayment timeline and enhances financial flexibility. These modifications are intended to reinforce Air T's long-term capital base while remaining consistent with its strategic aims and growth ambitions. "This modified financing structure significantly enhances our capital flexibility and allows us to pursue long-term value creation with greater certainty. It's another big step in support of the value we're seeking to build. And it's a scaling investment representing a continued vote of confidence by a sophisticated capital partner," said Nick Swenson, Chairman and CEO of Air T. Under the new terms, Air

T and its subsidiary will receive committed, non-recourse capital via scheduled disbursements through to 2027, with the full note maturing in 2035. The extended structure strengthens the company's ability to invest both independently and alongside co-investors. Funds from the agreement will also support the continued growth and strategic priorities of Crestone Air Partners, Inc.—a comprehensive aviation asset management platform—and other Air T subsidiaries. Founded in 1980, Air T Inc. comprises a portfolio of dynamic businesses and financial assets, each operating independently while contributing to a broader, interconnected enterprise. Its principal segments include overnight air cargo, ground support equipment sales, commercial jet engines and parts, and corporate investments. Crestone Air Partners, Inc. (CAP) specialises in investing in commercial aircraft and jet engines on behalf of capital partners.

GE Aerospace invests in hypersonic test facilities

GE Aerospace has reported major investments in its test infrastructure to accelerate the development of next-generation hypersonic propulsion systems. Upgrades at facilities in Evendale, Ohio, Bohemia, New York, and Niskayuna, New York will allow the company to carry out higher-Mach, mission-relevant testing at an unprecedented scale. In Evendale, GE Aerospace is enhancing its testing capabilities to accommodate larger hypersonic propulsion systems and support higher Mach number trials, allowing for more accurate simulation of flight conditions. In Bohemia, improvements are being made to the test cells acquired through GE's 2022 acquisition of Innoveering, a firm known for its expertise in hypersonic propulsion technologies. Meanwhile, in Niskayuna, the company is expanding its testing capacity at its research centre to support evaluation and development of next-generation systems. Mark Rettig, Vice President and

General Manager of Edison Works Advanced Programs at GE Aerospace, commented: "This investment significantly accelerates GE Aerospace's ability to meet future hypersonic propulsion needs. By enhancing our infrastructure, we're not only enabling more representative and scalable testing but also demonstrating our ability to deliver advanced technologies faster and more efficiently, ensuring our customers have the cutting-edge solutions they need when they need them." This initiative follows GE Aerospace's successful rapid development and testing of a hypersonic dual-mode ramjet, which progressed from concept to testing in under 11 months, and a liquid-fuelled ramjet tested just ten months, after initial concept definition. With these latest infrastructure upgrades, GE Aerospace continues to cement its leadership in delivering advanced propulsion technologies for the most demanding defence and aerospace applications.

TP Aerospace inks wheels and brakes deal with Supernova

TP Aerospace has signed a new long-term cycle flat rate (CFR) agreement with Ukrainian cargo carrier Supernova Airlines (Supernova) to provide wheels and brakes support for the airline's upcoming Boeing 737NG freighter operations. The deal marks a significant milestone in Supernova's growth strategy and reinforces TP Aerospace's presence in Eastern Europe's aviation sector. The agreement is already active, with services being delivered primarily from TP Aerospace's recently EASA-approved 10,000 m² flagship facility in Brno, Czech Republic. The Brno site, which received its final approval in December 2023, is a key hub for the company's European operations and will be instrumental in supporting Supernova's fleet requirements. Supernova Airlines, part of the Nova Group, was founded in 2021 and began official operations after receiving its Ukrainian operator's certificate in early



TP Aerospace will provide wheels and brakes support for Supernova's Boeing 737NG freighter aircraft © TP Aerospace

2023. Currently, the airline operates within the EU from hubs in Riga and Warsaw. Igor Lazniuk, Technical Director at Supernova, highlighted the importance of the new agreement: "Their expertise and capabilities will be instrumental in ensuring the reliability and efficiency

of our operations as we continue to grow." The CFR programme will ensure predictable maintenance costs and enhanced operational efficiency for Supernova's fleet, positioning both companies for continued success in the European cargo market.

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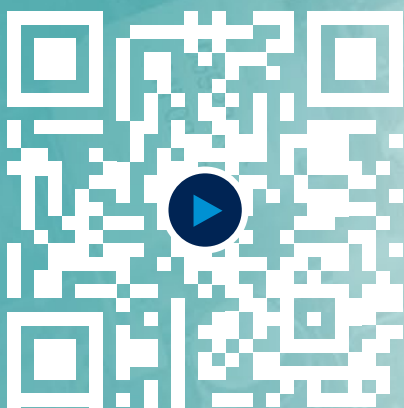
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Collins Aerospace reinforces aircraft electrification strategy



ElecTRAS

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Collins Aerospace (Collins), an RTX business, is reinforcing its aircraft electrification strategy with the launch of a new engineering centre of excellence in Wolverhampton, UK, and the establishment of a dedicated production line for electric thrust reverser actuation systems (elecTRAS™) in Colomiers, France. These developments represent a significant investment in the design, testing, and manufacturing of next-generation electric systems for commercial aircraft. The Wolverhampton facility is focused on the engineering

and development of elecTRAS, featuring advanced design and testing capabilities. It will operate in close collaboration with Collins' Aerostructures headquarters in Chula Vista, California, and its electronic controls and motor systems centre in Solihull, UK. This integrated approach aims to accelerate innovation and streamline development processes. In Colomiers, the new production line will carry out the final assembly of the elecTRAS units. This move is intended to improve manufacturing efficiency, increase nacelle integration

capacity, and enhance support for European customers by being closer to key aerospace partners. elecTRAS replaces traditional hydraulic-powered thrust reverser actuation systems, enabling nacelle designs that are easier to install and maintain while reducing system weight by 15–20%. This contributes to improved fuel efficiency and operational performance. Thrust reversers are a critical part of an aircraft's nacelle system, used to redirect engine thrust and help decelerate aircraft upon landing. Currently, Collins Aerospace supplies elecTRAS for the Airbus A350 family, which had over 600 aircraft in service by the end of 2024. With continued production into the next decade, elecTRAS has already accumulated around 11 million flight hours and 1.8 million flight cycles, underlining its reliability and maturity in active service. Together, the Wolverhampton and Colomiers sites bolster Collins' capabilities in electric propulsion technologies, positioning the company to meet growing global demand for more efficient and sustainable aircraft systems.

Delta TechOps chooses Trax to drive digital transformation

Delta TechOps, the maintenance division of Delta Air Lines, has selected Trax, the aviation maintenance software subsidiary of AAR, to overhaul its legacy maintenance and engineering systems. This strategic move marks a significant step in Delta's commitment to modernising its technical operations and improving overall efficiency across its maintenance network. Trax will provide its advanced eMRO and eMobility solutions to replace outdated systems. Initially, over 6,000 technicians within Delta TechOps' line maintenance network will benefit from these new tools, which are designed to digitise and streamline maintenance tasks. This implementation is expected to boost data accuracy, operational performance, and technician efficiency. Following this initial rollout, Delta and Trax plan to expand the use of the system further, incorporating additional eMRO modules and eMobility applications. These future deployments will focus on critical areas such as heavy maintenance, planning, engineering and quality management. All solutions will be hosted on the fully managed Trax Cloud platform, ensuring seamless scalability and robust data integration. The collaboration represents a broader trend in the aviation industry, as major airlines increasingly turn to digital platforms to handle the complexities of fleet maintenance. John M. Holmes, AAR's Chairman, President and CEO, noted that AAR's investments in Trax have positioned the company to support some of the world's largest and most diverse fleets. He expressed gratitude to Delta for choosing Trax to lead its system modernisation. John Laughter, President of Delta TechOps, echoed this sentiment, stating, "We are confident Trax will enhance our operational efficiency by streamlining maintenance processes across Delta TechOps, enabling our people to focus on delivering the Delta Difference."



© Trax

THAI selects RECARO R3 seats for A321neo fleet

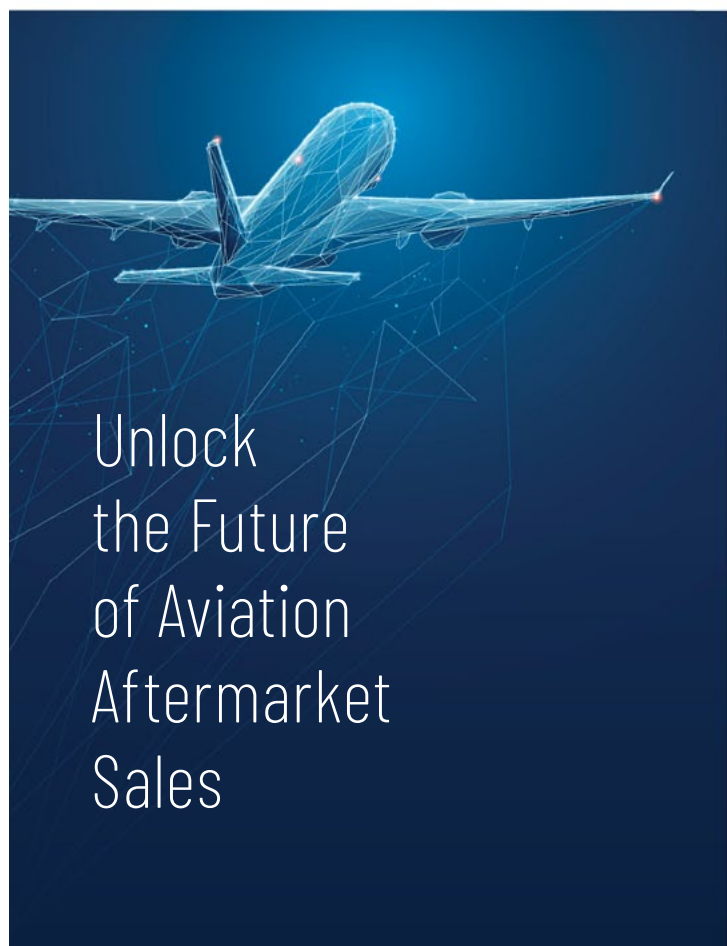
RECARO Aircraft Seating (RECARO) has announced a line fit collaboration with Thai Airways International (THAI) for the airline's A321neo fleet. The agreement includes the delivery of 32 shipsets of the R3 economy-class seats, with the first shipset scheduled for delivery in the fourth quarter of 2025. This new seating programme will feature a refreshed trim and finish, showcasing bespoke dress covers in a vivid shade of purple. The seat design pays homage to Thailand's cultural richness and contemporary elegance, incorporating a sophisticated stitching pattern inspired by elements of the THAI logo. This results in subtle tufting along the backrest that adds both style and identity to the cabin. Additionally, the seats include a beige, six-way adjustable headrest, debossed with THAI's signature logo for a refined aesthetic. Production of the R3 seats is already underway at RECARO's manufacturing facility in Poland. A dedicated, in-house cut-to-dress team is overseeing the creation of the customised backrest stitching, ensuring precision and attention to detail throughout the process. Designed with passenger comfort and onboard functionality in mind, the R3 includes standard features such as a tray table with stand, cup holder, literature pocket, and an additional amenity pocket. The seat also integrates a patented steward step and baggage bar combination, enhancing convenience by allowing easier access to overhead storage for both passengers and crew. Together, these innovations contribute to a refined and comfortable travel experience for THAI's customers.



THAI has opted for RECARO's R3 seats

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Werner Aero expands global operations with warehouse upgrade

Werner Aero has announced a significant expansion of its global operations through the addition of 22,000 ft² to its warehouse facility. This development is a strategic step that underscores the company's dedication to delivering fast, efficient and dependable services to its airline and MRO partners across the world. The enlarged facility will substantially boost the company's inventory storage capacity. With this added space, Werner Aero is better positioned to meet the growing demands of its expanding customer base. This improvement is expected to translate into quicker turnaround times and increased availability of essential aircraft components, which are vital for maintaining operational continuity in the aviation industry.



Werner Aero will add 22,000 ft² to its warehouse facility

© Werner Aero

myTECHNIC revolutionises procurement with SkySelect AI integration

myTECHNIC, the first greenfield MRO, has announced a major transformation in its procurement operations through the adoption of SkySelect, an AI-powered platform. This move has redefined the company's approach to procurement and set a new industry standard for operational efficiency. SkySelect's integration has led to the automation of quoting, delivered measurable savings, and significantly streamlined both supplier engagement and purchasing processes. Notably, two buyers at myTECHNIC

managed to handle 1,761 part requests in just three days—a dramatic increase from the previous average of 15–35 parts per buyer per day. This level of output would have previously required the input of up to 39 buyers. The company also reported impressive operational improvements, including high rates of real-time availability, rapid quote generation, and substantial time savings in order readiness. A 4.5% reduction in parts costs further highlights the financial impact of the change. Murat Eroğlu, Supply

Chain Director at myTECHNIC, stated: "Integrating SkySelect into our operations has been a game-changer. We have witnessed a significant reduction in our sourcing turnaround times while achieving broader quote coverage and enhanced supplier responsiveness. This technology has been instrumental in eliminating non-value-added tasks, allowing our team to dedicate their expertise to more strategic decision-making, ultimately benefiting our operational agility."

Aventure Aviation expands 737NG portfolio with latest acquisition

Aventure Aviation has added another aircraft to its fleet with the acquisition of a Boeing 737-700, marking its twenty-sixth Boeing 737 Next Generation (737NG) airframe. The aircraft, identified as MSN 30280, was formerly in service with Southwest Airlines and is now set to be dismantled by Ascent Aviation Services in Marana, Arizona. This move aligns with Aventure's long-term strategy of providing ongoing support to its global network of 737NG operators. The company remains focused on reinforcing its international investment platform in aviation, which is specifically tailored to meet the needs of investors

and leasing firms in the aerospace sector. With a strong emphasis on teardown management, Aventure offers a comprehensive range of services including capital deployment planning, asset management, and material consignments. The company positions these capabilities as core strengths in creating value for its stakeholders and facilitating the recycling and reuse of aircraft components. The firm continues to engage with a wide array of industry players—ranging from aircraft owners and financial institutions to lessors and airlines—to identify suitable aircraft for disassembly. These

discussions are aimed at generating returns from dormant or surplus aircraft through strategic teardown initiatives, particularly targeting assets that are no longer economically viable to operate. Through this latest purchase, Aventure solidifies its role in the secondary aircraft market and highlights its commitment to developing sustainable, revenue-generating solutions for the aviation industry. The acquisition not only supports customers' operational needs but also enhances Aventure's growing influence in aviation asset management and aftermarket services.

ST Engineering and Air Cairo sign LEAP-1A engine MRO contract

ST Engineering's Commercial Aerospace division has signed a five-year maintenance, repair and overhaul (MRO) contract with Air Cairo, marking the Egyptian airline as a new customer. The agreement covers support for the LEAP-1A engines powering Air Cairo's Airbus A320neo fleet. Services under the contract will include quick turn repairs and Performance Restoration Shop Visit (PRSV) work, all carried out at ST Engineering's engine MRO facility in Singapore. The first engine is scheduled for induction in mid-2025. Captain Ahmed Shanan, Chairman and CEO of Air Cairo, expressed satisfaction with the new partnership, highlighting ST Engineering's global reputation in engine overhaul. He emphasised that this collaboration supports Air Cairo's goals of maintaining high standards of safety, operational reliability, and excellence as the airline expands its network and modernises its fleet. Tay Eng Guan, Head of Engine Services at



Representatives from ST Engineering and Air Cairo showing the newly signed contract

© ST Engineering

ST Engineering, noted that the deal reflects growing industry confidence in the company's capabilities as a Premier MRO provider for LEAP engines. He also underlined the strategic importance of strengthening ST Engineering's support for Middle Eastern operators as demand for LEAP engine maintenance grows. ST Engineering was the first independent

MRO provider in Asia to be designated a Premier MRO partner within CFM International's LEAP open MRO network. It established testing capabilities for the LEAP-1A and LEAP-1B engines at its Singapore facility in 2024 and is now expanding to include PRSV and full MRO services to meet rising demand from airlines globally.



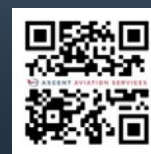
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AerFin sells CFM56-7B engine to major US operator



CFM56-7B engine

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AerFin has completed the successful sale of a serviceable CFM56-7B engine to a major US-based airline operator. While the buyer remains undisclosed, the deal highlights AerFin's capability to deliver technically robust, service-ready engines, backed by its in-house maintenance, repair and overhaul (MRO) team and a network of trusted partners. To prepare the engine for sale, AerFin's MRO team undertook a range of

technical procedures. These included a general visual inspection compliant with SP110, modification of the ID plug to adjust thrust rating, and the replacement of various Line Replaceable Units (LRUs). Additionally, a borescope inspection (BSI) was carried out by a third-party specialist, with AerFin overseeing the full process to ensure a smooth handover for the customer. This transaction reinforces AerFin's reputation for delivering flexible and cost-effective aftermarket solutions, tailored to meet the operational demands of global airlines. The company places strong emphasis on technical rigour, customer service, and rapid turnaround times, enabling clients to maintain fleet readiness and reliability. Auvinash Narayan, Chief Investment Officer at AerFin, noted that the deal reflects the company's ability to add value swiftly for major operators, while showcasing the high standards maintained by its MRO division. The engine sale is part of AerFin's broader strategy to provide sustainable whole engine solutions and Used Serviceable Material (USM), supporting efficient lifecycle management for airline fleets. With demand for the CFM56-7B engine platform remaining resilient, AerFin continues to position itself as a key provider of quality, serviceable engines and components to both airlines and MROs across the globe.

Japan Airlines to modernise aircraft maintenance with IFS Cloud

Japan Airlines (JAL) has embarked on a major digital transformation initiative aimed at overhauling its longstanding aircraft maintenance management system. The airline, which has relied on its existing system for over 15 years, has selected IFS Cloud for Aviation Maintenance to lead this modernisation project. IFS is providing the integrated platform. IFS Cloud for Aviation Maintenance is already used by several major international airlines and is known for its comprehensive capabilities. The system merges aircraft, engine and component maintenance with wider corporate functions such as supply chain logistics, spare parts inventory management, finance and project oversight. For JAL, the move

is part of a broader strategy to not only replace legacy systems but also ensure long-term scalability and adaptability for future business growth. In support of the project, a specialist from the IFS Aerospace and Defence division has travelled to Japan to collaborate directly with JAL's IT and maintenance teams. The initiative begins with a thorough assessment to ensure operational compatibility with the IFS Cloud platform, which is expected to culminate in full system implementation. The collaboration marks an important step for JAL as it leverages advanced digital tools to strengthen its maintenance operations, enhance aircraft availability, and secure a competitive edge in the aviation industry.

HAECO partners with China Airlines for B737 landing gear services

HAECO has announced a new partnership with Taiwan-based China Airlines to provide landing gear services for the carrier's Boeing 737-800 fleet. The work will be carried out at HAECO's dedicated landing gear facility in Xiamen, covering seven aircraft between 2025 and 2027. This agreement builds on a long-standing relationship between the two companies and expands HAECO's support across China Airlines' entire Boeing fleet. The collaboration now encompasses both narrow-body and wide-body aircraft, including Boeing 737, 747, and 777 models. HAECO has previously delivered overhaul and exchange services for the airline's Boeing 747-400 freighters and landing gear maintenance for its Boeing 777-300ER aircraft since 2014. The new contract represents a key milestone in HAECO's efforts to strengthen its presence in the Asia-Pacific region, offering tailored maintenance

solutions underpinned by safety, quality, and customer focus. The agreement aligns with HAECO's broader strategy to support airline operators with flexible and reliable services that ensure fleet readiness and operational efficiency. HAECO Landing Gear Services is certified to work on a diverse range of aircraft, including Boeing 737 through 787 series, Airbus A320 family, and Embraer E190/E195 aircraft. China Airlines remains one of its key joint venture partners. The facility reached a major achievement last year by completing its 2000th landing gear overhaul, further underscoring its role as a trusted provider of aviation maintenance solutions. As HAECO celebrates 75 years of operations, the partnership with China Airlines reinforces its ongoing commitment to delivering high-quality engineering support in an evolving global aviation landscape.

Lufthansa Technik opens training centre in Santa Maria da Feira, Portugal



The first 18 employees of Lufthansa Technik Portugal, together with Volker Magunna and representatives of AICEP and the city of Santa Maria da Feira, in front of the new training centre
© Lufthansa Technik

In preparation for its upcoming facility in Portugal, Lufthansa Technik has opened a new training centre in Santa Maria da Feira, located approximately 35 kilometres south of Porto. The centre welcomed its first cohort of 18 employees for Lufthansa Technik Portugal on Monday, June 2. Situated in the 'Perm' industrial park, around nine kilometres from the future facility's location, the training centre comprises two buildings. One building is currently being used for introductory sessions and theoretical lessons, while the other will soon be equipped for hands-on practical training. These sessions will be overseen by qualified and experienced Lufthansa Technik staff from Hamburg. The site, leased for three years, includes several seminar rooms and modern office space with fully equipped workstations.

Lufthansa Technik, one of the world's leading providers of technical aircraft services, announced in December its intention to invest a triple-digit million-euro sum in a new Portuguese site. Construction is set to begin next year in the 'Lusopark' industrial area of Santa Maria da Feira. The 54,000 m² production facility will focus on the repair of engine parts and aircraft components, eventually creating around 700 jobs. The facility is expected to be operational by the end of 2027. Since the project's announcement, 25 employees have already been recruited, including roles such as Human Resources Manager, Production Manager and Tool & Equipment Engineer. A further 20 hires are planned before the year's end. The company continues to recruit technicians, quality engineer auditors, and additional human resources

specialists. Interest has been high, with an average of 150 applicants per vacancy. As Chairperson of the Board at Lufthansa Technik Portugal, Volker Magunna personally welcomed all new employees at the training centre on Monday, together with Ricardo Arroja, CEO of the Portuguese trade and investment agency AICEP (Agência para o Investimento e Comércio Externo de Portugal), and Amadeu Albergaria, Mayor of Santa Maria da Feira. To sustain this momentum, Lufthansa Technik Portugal aims to build strong partnerships with educational institutions across the country. It is already collaborating with Cenfim, the national vocational training centre specialising in metal, metalworking, and electromechanical industries, to support the selection and training of future technical staff.

IndiGo to build major MRO hub at Bengaluru Airport

Indian carrier IndiGo has signed a memorandum of understanding (MoU) with Bengaluru International Airport (BIAL) to develop a dedicated maintenance, repair and overhaul (MRO) facility at Kempegowda International Airport, Bengaluru. This strategic move reinforces IndiGo's commitment to expanding its operational capabilities in the region. Under the agreement, BIAL will allocate approximately 31 acres of land for the development of a state-of-the-art MRO facility. Once completed, it will be capable of servicing both narrow-body and wide-body aircraft, supporting IndiGo's growing fleet of over 400 aircraft. The facility will enhance aircraft availability, improve cost efficiencies and reduce turnaround times—ultimately benefiting both the airline and its customers. Beyond the MRO infrastructure, the MoU also includes provisions for broader cooperation in network expansion, infrastructure development, and joint marketing efforts. This partnership is expected to significantly contribute to the growth of the aerospace and defence ecosystem in Karnataka, while positioning Bengaluru as a central hub for both domestic and international aviation and cargo operations. IndiGo already operates MRO facilities in Delhi and Bengaluru. The new development marks a major step forward in its long-term strategic growth and operational excellence.



Kempegowda International Airport Bengaluru

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ACIA enhances and expands credit facility



© ACIA Aero

ACIA Aero Leasing (ACIA) has reported the successful extension and expansion of its existing syndicated credit facility, led by Investec Bank. The upgraded facility now includes both term loan and revolving credit tranches, as well as a newly added subordinated term loan tranche. This

improved structure is designed to provide ACIA with increased financial flexibility and enhanced funding capacity to support its growing aircraft portfolio and international leasing operations. The syndicate has been strengthened with the addition of Absa Corporate and Investment Banking,

Ninety One, and Sanlam Alternative Investments. Their inclusion marks a significant broadening of ACIA Aero Leasing's banking relationships and lender base, reflecting growing confidence in the company's strategy and operational resilience. The expanded facility is viewed as a scalable and tailored financing solution to accommodate ACIA's evolving needs as it continues to grow within the global aviation leasing market. Bradley Gordon, SVP of Banking and Capital Markets at ACIA Aero Leasing, noted the value of deepening relationships with existing partners while welcoming new financial institutions into the fold. "The addition of Absa, Ninety One and Sanlam Alternative Investments into the syndicate, alongside the continued support and leadership of Investec Bank, demonstrates the deep trust placed in us by our financing partners," he said. John Shaw of Investec Bank reaffirmed the bank's commitment to ACIA, and Kobus Swart of Absa praised the company's agility and long-term growth potential.

FL Technics Indonesia certified for Boeing 737 MAX maintenance

FL Technics Indonesia has officially received certification from the Indonesian Directorate General of Civil Aviation (DGCA) to carry out both line and base maintenance on Boeing 737 MAX aircraft. This includes the 737-8 and 737-9 variants equipped with CFM LEAP-1B engines, at the company's Jakarta (CGK) and Bali (DPS) facilities. This achievement underscores FL Technics Indonesia's ongoing commitment to supporting

next-generation aircraft fleets across Indonesia and the broader Asia-Pacific region. "Securing this authorisation for the upkeep of Boeing 737 MAX illustrates our engineering team's ability to support the development of the aircraft, which include advanced airframe systems, avionics, and powerplant technologies. This accomplishment enables us to serve better operators transitioning to more fuel-efficient fleets and reinforces our position as a reliable

MRO partner throughout Southeast Asia," –Martynas Grigas, Chairman of FL Technics Indonesia. In addition to this new capability, FL Technics Indonesia continues to provide comprehensive MRO solutions for Boeing Classic, NG, MAX, Airbus A320ceo and neo aircraft, and a wide range of engines including CFM56-3/5/7, V2500-A, LEAP-1A/1B and PW1100G.

Joramco approved to service next-generation Embraer E2 jets

Joramco, the Amman-based MRO specialist and engineering division of Dubai Aerospace Enterprise (DAE), has received official approval from Jordan's Civil Aviation Regulatory Commission (CARC) to carry out both line and base maintenance on the Embraer ERJ-190 series powered by PW1900G engines. To secure this capability, Joramco undertook a comprehensive training initiative. The theoretical component was delivered by

Embraer instructors at Joramco's own facility, offering instruction tailored to the company's procedures. Practical training was conducted in Brazil at Embraer's specialist training centres, where Joramco engineers gained hands-on experience working on E2 aircraft under the direct supervision of the original equipment manufacturer (OEM). This capability expansion is especially significant given the increasing

number of operators adopting newer-generation aircraft. By being able to support the E2 series, Joramco enhances its appeal to a broader customer base, including Jordan's national airline, Royal Jordanian. The approval positions Joramco as a more versatile and forward-looking MRO provider in the region, further strengthening its reputation in both regional and international aviation markets.



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StandardAero and Green Taxi Solutions form partnership

StandardAero, an independent provider of aerospace engine aftermarket services, has formed a strategic partnership with Green Taxi Solutions (GTS) to certify the Zero Engine Taxi™ system—a fully electric solution enabling aircraft to taxi without using their main engines. This collaboration is supported by a newly awarded US\$5.6 million grant from the U.S. Federal Aviation Administration's (FAA) Continuous Lower Energy, Emissions and Noise (CLEEN) programme. The Zero Engine Taxi™ system, or eTaxi, operates using the aircraft's auxiliary power unit (APU), offering substantial environmental and operational benefits. These include reduced fuel burn, lower carbon emissions, decreased brake wear, less noise, and quicker turnaround times. The system is projected to save up to 80,000 gallons of fuel and \$250,000 per aircraft annually, aligning with the aviation industry's sustainability and efficiency goals. StandardAero will lead the FAA certification process, beginning with the Embraer E175. The process is expected to take two to three years and will later expand to cover other commercial and military aircraft. Certification from international regulators, including the European Union Aviation Safety Agency



© Green Taxi Solutions

(EASA) and Brazil's Agência Nacional de Aviação Civil (ANAC), is also planned. With extensive experience in engine maintenance, engineering, and securing certifications from aviation authorities

worldwide, StandardAero's involvement is considered crucial to the success of the eTaxi programme and broader efforts to introduce clean technology into ground operations.

Werner Aero acquires A320-200 for teardown



Werner Aero acquires A320-200 for teardown

© Werner Aero

Werner Aero has announced the acquisition of an Airbus A320-200 aircraft, MSN 2874, from FTAI Aviation for teardown. This marks a strategic move to expand Werner Aero's global inventory of high-quality aircraft components. The aircraft is set to be dismantled at Air Salvage International,

based at Cotswold Airport in the United Kingdom. The teardown will be conducted with a focus on ensuring all harvested parts adhere to the highest industry standards, reinforcing Werner Aero's commitment to safety, reliability, and excellence. These components will significantly bolster the company's

inventory, enabling it to better support the operational requirements of airlines and MRO (Maintenance, Repair, and Overhaul) providers around the world. This acquisition forms part of Werner Aero's broader strategy to meet the growing demand for dependable, cost-effective aftermarket solutions within the aviation sector. By enhancing its stock of serviceable parts, the company aims to offer greater flexibility and responsiveness to its customers across a wide range of markets. With a reputation for innovation and customer-centric service, Werner Aero continues to strengthen its position as a leading provider in the aviation aftermarket. The addition of components from MSN 2874 is expected to contribute meaningfully to the company's support capabilities, reinforcing its role as a trusted partner to both commercial carriers and maintenance organisations worldwide.

P&WC and Lufthansa Technik AERO Alzey renew overhaul licence



Mechanics working on a PW100 engine

© LTAA

Lufthansa Technik AERO Alzey (LTAA), a wholly owned subsidiary of Lufthansa Technik, has renewed its Designated Overhaul Facility (DOF) licences with Pratt & Whitney Canada (P&WC) for

the maintenance and overhaul of PW100 and PW150 engine types. The agreement was signed during the Paris Air Show and authorises LTAA to continue delivering full-scale engine

maintenance services for a broad range of regional aircraft. The licence renewal covers around 3,300 PW100 and 850 PW150 engines in operation worldwide, which primarily power regional aircraft such as the ATR 72 and the De Havilland Canada DHC-8-400 (Q400). The contract reinforces a partnership that dates back 37 years, highlighting the enduring collaboration between LTAA and Pratt & Whitney Canada. LTAA first began working with the PW100 engine in 1988, when the company operated under the name DLT A.E.R.O. Services GmbH. The relationship expanded further in 2006 when LTAA was appointed as a DOF for the PW150 engine. Since then, LTAA has continually fulfilled its role as an authorised facility, maintaining the highest standards of quality and reliability in aviation engine maintenance. This latest renewal not only secures LTAA's ongoing role in supporting regional aviation but also demonstrates the mutual trust and technical expertise shared between LTAA and Pratt & Whitney Canada.

DTX Group emerges as independent force in global aerospace market

DTX Group has officially launched, marking a significant milestone in the evolution of the global aerospace sector. This development coincides with **Hussein Lookmanjee's** complete divestment from Drayton Aerospace, with his remaining equity acquired by Lion Capital. The move allows Lookmanjee to dedicate his full attention and resources to the international growth and strategic leadership of DTX Group. In 2019, Drayton Aerospace pursued a dual-track strategy: a regionally focused business driven by local leadership, and an international arm led by Lookmanjee. With a reputation for building greenfield operations, Lookmanjee was tasked with spearheading the international division. Meanwhile, Drayton Aerospace localised its China operations by appointing **Hong Qi Ye** as China President in 2020 and **Steven Young** as CEO in 2021. Following a strategic realignment, Lion Capital has now assumed controlling interest in Drayton Aerospace's China-based operations, alongside eight Chinese partners. In contrast, all non-China entities—such as the Brazil-based MRO businesses and global support units—have been integrated into the newly launched DTX Group, which remains solely owned by Lookmanjee. This restructure reflects diverging priorities between the China-centric shareholders and the globally focused DTX team. Over the past six years, Lookmanjee and his senior leadership

team have built a robust international platform, establishing new maintenance facilities, expanding into parts distribution, and entering key regions including South America and the Middle East. Under his leadership, Drayton Aerospace became a recognised independent player in civil and freight aviation MRO markets. "Now is the right time for this transition," said Lookmanjee. "DTX Group has evolved into a globally competitive business that merits dedicated focus. This move enables us to pursue our original international vision with greater clarity and autonomy. We plan to fully invest the proceeds from the Drayton divestment into strategic growth opportunities, including three exciting acquisitions slated for completion before year's end." Despite temporary delays during the COVID-19 pandemic, DTX Group's international strategy has regained momentum. Officially established in September 2024, the company is headquartered in the Middle East. It operates a parts trading business in the United States and two MRO facilities in Brazil, with a new Middle Eastern MRO site scheduled to open by Q3 2025. Future expansion is also planned across Africa and Europe. DTX Group will now operate independently, with a cohesive international team poised to lead the next phase of growth. The organisation enters this new chapter with a focused strategic vision and a clear mandate for global expansion.

FDH Aero expands global operations



FDH Aero Bremen, Germany

© FDH Aero

FDH Aero, a trusted and independent supply chain solutions provider for the aerospace and defence sectors, has announced significant global expansions across Europe, East Asia and South Asia. These developments are part of the company's long-term investment strategy to strengthen infrastructure and local expertise in regions showing sustained growth, supported by major contract wins and strategic partnerships. In Europe, FDH Aero is enhancing its Centre of Excellence in Bremen, Germany. The company is

deepening its relationship with Airbus by supplying a wider range of critical components. Already an authorised solutions partner for Airbus's helicopters, defence, and space divisions, the company is now playing an expanded role in supporting commercial aircraft production, helping meet the rising global demand for new aircraft. This development increases operational efficiency and adds value to Airbus's manufacturing efforts in the region. In East Asia, FDH Aero is expanding its facility in Singapore to better meet customer needs and support ongoing growth across Southeast Asia. In South Asia, the company has opened a new sales office in Bengaluru, India. This move strengthens local inventory and support for its FDH Electronics and FDH Hardware, directly addressing the requirements of India's rapidly growing aerospace manufacturing sector. "These investments reflect FDH Aero's commitment to growing alongside our customers around the world," said Matt Lacki, President of FDH Hardware. "We're excited to deepen our presence in key markets like Germany, Singapore and India, where we've combined great people, deep product knowledge, and operational strength." FDH Aero's expansion enables faster, more responsive service tailored to regional needs, ensuring efficient fulfilment and on-time delivery for customers across the globe.

First Rolls-Royce XWB-84 engine inducted at AFI KLM E&M facility

Rolls-Royce has announced that the first Trent XWB-84 engine scheduled for maintenance, repair and overhaul (MRO) will be inducted this week at Air France Industries KLM Engineering & Maintenance's (AFI KLM E&M) facility, located at Charles De Gaulle Airport, Paris, France. This milestone marks the establishment of dedicated capability to support the Air France fleet exclusively. It also enhances Rolls-Royce's global MRO network by providing additional capacity to serve customers worldwide. The facility complements the company's existing MRO footprint and helps address growing long-term demand for civil large engine services. The induction follows an agreement announced at the Paris Airshow 2023, for the maintenance and repair of Trent XWB engines that power the Airbus A350. This builds on an initial agreement signed in 2014, as part of the Air France-KLM Group's acquisition of the aircraft. Both Air France and KLM have ordered the Trent XWB-powered Airbus A350, with engine support provided under Rolls-Royce's comprehensive TotalCare service. Earlier this year, Air France celebrated one million engine flying hours with the Trent XWB-84.



The first Trent XWB-84 engine scheduled for MRO will be inducted at Air France AFI KLM E&M facility, at Charles De Gaulle Airport, France
© Rolls-Royce

Woodward to supply A350 spoiler actuation system for Airbus

Woodward, a global specialist in aerospace and industrial energy control solutions, has announced that Airbus has selected the company as the supplier for the electro-hydraulic A350 spoiler actuation system. The agreement covers actuation systems for 12 of the aircraft's 14 spoilers, along with maintenance and repair services for the Woodward-supplied A350 Spoiler Actuation System. These services will support A350 operators and Airbus' Flight Hour Services (FHS) business. The Airbus A350 is a long-range, widebody twin-engine airliner that has been in service since 2015 and remains in production, with an order backlog exceeding 700 aircraft. Spoiler actuation systems manage the position of spoiler flight control surfaces on the wings, helping to control the aircraft's roll orientation

and reduce lift to ensure safer and more efficient descent and landing. "Airbus has been a highly valued customer of Woodward for decades, and we take great pride in supporting their ongoing commitment to innovation and excellence," said Chip Blankenship, CEO and Chairman of Woodward. "The opportunity to supply the A350 spoiler actuation system enhances our comprehensive portfolio of engine and airframe control systems we provide to aerospace customers. We are looking forward to continuing our work with Airbus to achieve optimal efficiency throughout the A350 aircraft lifecycle." To commemorate the agreement, Woodward and Airbus executives held an event at the Woodward booth during the 55th International Paris Air Show.

SalamAir chooses StandardAero for LEAP-1A engine MRO support

SalamAir, Oman's low-cost carrier, has selected StandardAero to provide MRO support for the CFM International LEAP-1A turbofan engines powering its fleet of Airbus A320neo-family aircraft. StandardAero delivers support for the next-generation CFM International LEAP-1A and LEAP-1B engine family from its 810,000-ft² facility in San Antonio, Texas. It is a CFM LEAP Premier MRO provider, having signed the first non-airline CFM-branded service agreement (CBSA) in the Americas for the LEAP-1A and LEAP-1B in March 2023. Commenting on the announcement for SalamAir, Adrian Hamilton-Manns, SalamAir CEO said: "At SalamAir, safety, operational reliability and cost-efficiency remain at the core of our strategy as we continue to expand and modernize our fleet. Partnering with StandardAero for LEAP-1A engine MRO support marks a significant step in ensuring the long-term performance and availability of our aircraft. We are confident in StandardAero's proven capabilities and technical expertise, and we look forward to a strong partnership that supports our growth and commitment to delivering dependable and affordable travel for our passengers across the region." In addition to establishing MRO capability for the LEAP-1A and LEAP-1B at its San Antonio facility, StandardAero is also industrialising new engine component repairs for the LEAP family through its component repair services (CRS) team's network of locations and its Repair Development Centre of Excellence. To date, StandardAero's CRS team has industrialised more than 300 component repairs for the LEAP-1A and LEAP-1B. SalamAir currently operates a fleet of 13 Airbus A320/321 aircraft, with more than 80 daily flights. In 2025, the airline will expand its fleet with two new aircraft scheduled for delivery in July. SalamAir announced a ten-aircraft order in February 2025, aiming to grow its fleet to 25 aircraft by 2028.



SalamAir Airbus A320

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AerCap and AFI KLM E&M to lease LEAP spare engines in new venture

AerCap Holdings N.V. and Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) have entered into exclusive negotiations to establish a joint venture dedicated to leasing LEAP engines. This initiative is designed to support AFI KLM E&M's LEAP premier MRO customers globally, ensuring consistent operational continuity for Airbus A320neo and Boeing 737 MAX operators. The proposed joint venture, which remains subject to regulatory approval, will see both companies jointly owning and managing a pool of LEAP-1A and LEAP-1B spare engines. These will be used to maintain uninterrupted operations for airlines whose aircraft engines are undergoing quick-turn or performance restoration shop visits at AFI KLM E&M facilities. This arrangement aims to significantly improve fleet uptime and service reliability for operators of next-generation narrow-body aircraft. The collaboration builds upon an already strong working relationship

between AerCap and AFI KLM E&M in the field of lease engine support. It also combines the core strengths of both companies—AerCap's global expertise in aircraft and engine leasing and asset management, and AFI KLM E&M's deep experience as an airline-affiliated MRO with first-hand operational knowledge of new-generation aircraft. Tom Slattery, Executive Vice President of AerCap Engines, praised the long-standing partnership and highlighted the value of AFI KLM E&M's service capabilities. Anne Brachet, EVP at AFI KLM E&M, emphasised the importance of access to LEAP spare engines and noted that the joint venture would enhance flexibility and provide innovative, customer-focused support across the aviation sector. The new venture is poised to offer a robust solution in a market where spare engine availability is increasingly critical, reflecting both companies shared commitment to operational excellence and industry innovation.

Aircraft Academy gains EASA Part 66 approval



Aircraft maintenance training © Aircraft Academy

Aircraft Academy, a Vallair Group company and a prominent provider of aviation training solutions, has received formal approval from the European Union Aviation Safety Agency (EASA) to offer EASA Part 66 training and examinations. This significant certification enables Aircraft Academy – already an approved EASA Part-147 training organisation – to deliver comprehensive training and assessment services for aircraft maintenance engineers across multiple categories. The EASA Part 66 certification is an internationally recognised standard, ensuring the highest levels of competence and regulatory compliance for licensed aircraft maintenance engineers. With this latest approval, Aircraft Academy is now authorised to deliver both theoretical and practical training, along with conducting approved examinations in line with EASA's stringent requirements. Training under EASA Part 66 will include key categories such as Category B1 (mechanical) and Category B2 (avionics), among others. "The training programmes are designed to meet the evolving needs of the aviation industry and support both aspiring and current engineers in attaining their professional goals," said Armel Jezequel, CEO of Aircraft Academy. "We are experiencing huge demand from all over the world for aircraft mechanic

training. Students from as far afield as the Philippines and India are joining their European peers of all ages to gain qualifications or upskill to new aircraft and engine types." The addition of EASA Part 66 approval further demonstrates Aircraft Academy's commitment to quality, safety, and regulatory excellence in aviation education. As global demand for qualified maintenance engineers continues to grow, this new capability reinforces Aircraft Academy's ambition to become a benchmark for excellence in the aviation training sector.

A stylized illustration of a woman with dark hair in a ponytail, wearing large black sunglasses, a red circular earring, and a dark blue business suit with a red pocket square. She is holding a red and blue duffel bag. The background features a large blue gear and a stylized globe.

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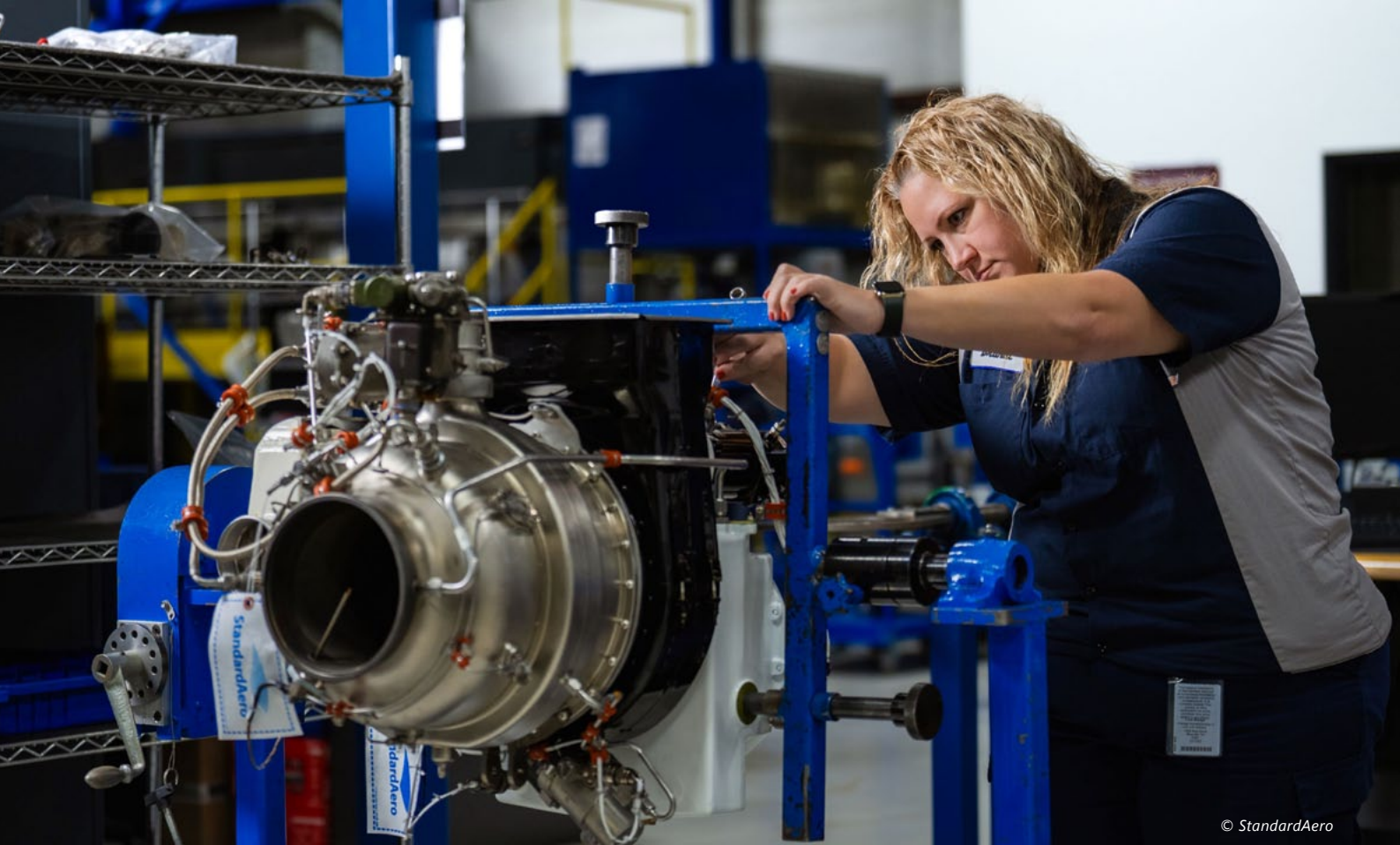
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APUs and the Challenges They Bring

By David Dundas

An auxiliary power unit (APU), usually located in the tail cone of an aircraft, but also in a nacelle or wheel well, is a small, independent, gas turbine engine. In simple terms, it is a self-contained generator which enables an aircraft to remain operable on the ground without the need for an external power source, such as a ground power unit (GPU). The APU is responsible for the provision of starting power for the main engines, and power for essential onboard systems along with electrical power and bleed air for cabin air conditioning. It also plays a role as a back-up power source in the event of engine generator failure. With its critical role when an aircraft is on the ground, we spoke to three MROs who are specialists in APU maintenance to get a better understanding of the challenges they face and how APU maintenance is carried out.

What are the key challenges in maintaining and repairing APUs compared to main engines?

Anthony Robbins, Honeywell 36 Series APU Team Leader (UK) at Standard Aero raises a key issue very early on, which

relates to the fact that in comparison to an aircraft's main engines, the APU is much smaller and usually well tucked away, bringing its own set of problems. "APUs are a key sub-system for modern airliners, providing a range of valuable functions including power for avionics and cabin lighting, air conditioning (hot or cold), and main engine start. However, they inevitably get less attention than main engines (being hidden in the aircraft's tail cone), and this is sometimes reflected in the APU's logbook history. Lead times for replacement parts and repairs can be a challenge, especially when MROs are competing with new production lines for parts," he tells us. Mike DeMicco, Senior Vice President of Sales & Material Management at VAS Aero Services also identified problems with parts' availability, commenting that: "Auxiliary Power Units present unique challenges in maintenance and repair compared to main engines, despite their smaller size and simpler design. Those challenges include increased wear and tear due to high thermal conditions and the limited monitoring and onboard diagnostic sensors which makes identifying and troubleshooting issues more difficult. Additionally, because APUs

have such varied operations, maintenance planning can be more complex. Parts availability and specialised tooling may also be more limited than for main engines, leading to longer turnaround times."

What are the most common maintenance issues encountered with APUs?

Where would we all be without oil leaks? Ring a bell with those of you more familiar with APUs? It certainly seems to be a recurring theme with our three respondents. Quincey Pagani, Director of APU Sales at Werner Aero is keen to point out that: "Due to frequent cycling, stress, and high heat, APUs are susceptible to some common maintenance issues." She then goes on to explain that: "One of most common maintenance issue is due to oil leaks and excessive oil consumption which is often caused by worn seals and/or bearings. Another is caused by damage to the turbine blades and rotors due to stress at high temperatures, overall fatigue, or FOD which could cause cracks, warping, or rubbing. Starter motor failures can cause no-start conditions of the APU and



© StandardAero

additionally, malfunctions of the FCU can cause shutdowns.” Mike DeMicco feels that rates of use and certain problems are related. “APUs experience a range of maintenance issues, mostly stemming from their operating environment and usage patterns (frequent starts and stops, short run times, etc.). Problems may include oil system leaks or low oil pressure, starter motor and generator malfunction, and load compressors and bleed valves issues. All

of these potential issues require routine inspection, condition monitoring and preventive maintenance to ensure reliable operation,” he says. To round off the topic, Anthony Robbins succinctly adds: “Two of the most common maintenance issues encountered with APUs are leaking compressor and generator seals.”

How should airlines decide between APU repair, overhaul, and replacement?

Once again Mike DeMicco sees this as a usage-related problem, as he tells us that: “Airlines strive to properly balance investment costs, maintenance downtime, and expected condition lifecycle. A repair is generally suitable for minor, isolated issues and offers the quickest return to service at the lowest expense. However,

if the APU has high operating hours or multiple worn components, an overhaul may be more cost-effective for restoring the unit to a condition for extended service life.” He then goes on to point out that: “Replacement should be carefully considered when the cost of overhaul approaches or exceeds that of acquiring a replacement serviceable unit, while also taking into account the APU’s age and reliability record. VAS Aero Services acquires a high volume of aircraft annually for teardown, which gains access to APUs in different configurations and conditions to re-supply into the market to key customers. When a replacement need arises, VAS is ready to fill the gap.”

Quincey Pagani makes it clear that there are a whole range of factors that need to be taken into consideration when making such decisions between repair,



Mike DeMicco, Senior Vice President Sales & Material Management, VAS Aero Services

“APUs experience a range of maintenance issues, mostly stemming from their operating environment and usage patterns (frequent starts and stops, short run times, etc.).”

Mike DeMicco, Senior Vice President Sales & Material Management, VAS Aero Services

overhaul, and replacement as she tells us that: "There are many factors that airlines need to consider when determining if an APU needs to be repaired, overhauled, or replaced such as: the time since last shop visit; the cost between repairing or overhauling; and overall market availability of units. If an APU has low time since its last overhaul and shows a minor fault, a repair could fix the issue and be the most cost-effective option. A repair can also be the best option for any APU lease returns. But, if there is lengthy time since the last overhaul and multiple findings presented during inspection, then an overhaul would be the best option as it would also offer better long-term reliability. A replacement could be preferred when an airline is looking to reduce operational downtime or phasing out their older APUs when it becomes too costly to maintain."

For Anthony Robbins, the situation is less complicated. As he points out: "Honeywell APUs such as the GTCP36-150[RJ] are operated mainly on a 'continued-time' basis, with the unit being repaired as required to keep it functioning safely and reliably. This approach enables operators to avoid the cost of a replacement unit."

What best practices can airlines adopt to extend the service life of their APUs?

As MROs will testify, the nature of their work is wholly dependent on the way airlines operate their aircraft. MROs can only advise on best practices and maintenance schedules, it is up to the carriers themselves to decide what they should do, providing everything still remains within the rules and regulations set out by regulatory bodies such as the FAA and EASA. Mike DeMicco explains: "To extend the service life of APUs, airlines must focus on proactive maintenance and efficient operation. Regular inspections and adherence to manufacturer-recommended maintenance intervals can optimise early

detection of wear and potential failures. Monitoring key performance parameters can help identify issues before they lead to major component damage. Maintaining accurate service records and using data analytics to monitor trends play important roles in predictive maintenance, ultimately extending APU reliability and operational life. Meanwhile, in Anthony Robbins opinion: "Recommended best practices include ensuring that scheduled maintenance is performed, for example hot section inspections (HSIs). We also recommend that any defects identified are repaired as early as possible, i.e. to avoid the risk of any downstream damage, and that operators ensure that any erosion of hot section parts is addressed before becoming excessive (and thus potentially unreparable).

Thinking outside the box is clearly a forte for Quincey Pagani as her solution of using the APU only when there is no alternative available makes perfect sense. "One of the best practices that airlines can adopt to extend the service life of their APUs is to use Ground Power / GPUs as much as possible when parked at the gate to utilise an alternative source of energy not related to the usage of the APU. Another would be to perform regular inspections, which would also include a borescope inspection, to help detect any signs of wear and/or damage that may need to be addressed. If the airline needs to store the APU for any reason, they should be following OEM-approved storage guidelines that helps ensure that while the APU is not being used it is preserved in a manner to help prevent any corrosion, contamination, and/or degrading of the seals," she tells us.

How do modern diagnostic tools and predictive maintenance impact APU reliability?

Modern diagnostic tools streamline troubleshooting, enabling quicker fault

isolation and repair. This minimises aircraft ground time and avoids costly delays. Advanced onboard monitoring systems now collect real-time data on key performance metrics such as temperature, vibration, oil pressure, and rotational speed. This data allows maintenance teams to track trends, identify deviations, and predict failures before they occur. VAS Aero Services' Mike DeMicco expands further: "Data analytics-powered predictive maintenance helps optimise maintenance schedules based on actual APU usage and condition rather than fixed intervals. This reduces unnecessary inspections while ensuring critical issues are addressed promptly, extending component life and improving safety and operational efficiency." Meanwhile, at Standard Aero, Anthony Robbins sums up the situation as follows: "The use of engine health monitoring (EHM) enables potential maintenance issues to be identified and addressed before causing an operational impact (i.e. an unscheduled removal), through the use of data trend analysis."

What factors contribute most to APU maintenance costs, and how can they be mitigated?

Some of the major cost drivers for APU maintenance are from unscheduled removals, replacement of LLPs, pricing of spare parts utilised during repairs, or costly overhauls. One can help mitigate these costs by providing routine maintenance and inspections on the unit to catch any issues early on to prevent major failures and extend service intervals; utilisation of used serviceable material can help reduce



Quincey Pagani, Director of APU Sales, Werner Aero

“One of the best practices that airlines can adopt to extend the service life of their APUs is to use Ground Power / GPUs as much as possible when parked at the gate to utilise an alternative source of energy not related to the usage of the APU.”

Quincey Pagani, Director of APU Sales, Werner Aero

repair/overhaul costs instead of installing costly OEM parts. Quincey Pagani goes on to inform us that: "Another item to consider would be installation of PMA parts, when approved, as they can also provide a significant decrease in cost during a shop visit. Also, repair contracts with APU repair shops can help mitigate high overhaul costs, such as with flat-rate agreements, by allowing for a better budgeting strategy and eliminating any high surprise charges."

Anthony Robbins quickly identifies two principal 'culprits', telling us that: "The two biggest factors contributing to APU maintenance costs are the cost of replacement parts and the cost of repairs. Operators are able to mitigate these costs by following recommend maintenance best practices, and by ensuring that APUs are properly preserved during any extended downtime." Mike DeMicco goes into slightly greater depth to highlight both problems and also solutions as he informs us that: "APU maintenance costs include labour, parts replacement, unplanned repairs, and aircraft downtime. Unscheduled removals and lack of spare unit availability can lead to costly aircraft downtime and logistical delays. High replacement costs for some components further drive up expenses. To mitigate these costs, airlines can implement predictive maintenance strategies that use real-time data to anticipate issues and schedule timely interventions. Working with parts supply partners such as VAS will allow the operator to maintaining a ready inventory of high-turnover parts by leveraging stocking and pooling



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arrangements, which will improve both cost control and operational efficiency."

Are there any recent advancements in materials or design that enhance APU durability?

As the final question to this exploration into the world of APUs, we wanted to get a better feel for what has the potential to lead to their greater durability. "Recent advances in materials and design have significantly enhanced the durability of APUs, enabling them to withstand demanding environmental and operational conditions. New alloys being introduced are exhibiting exceptional mechanical properties and ceramic/carbon composites demonstrate a high thermal stability and

oxidation resistance. Advances such as these should increase parts durability and have a direct impact on maintenance needs," advises Mike DeMicco. Anthony Robbins gives a very clear and ideal example of such improvements when he tells us that: "On Honeywell APUs, recently introduced improved compressor and generator seals are helping to increase 'on wing' time," while Quincey Pagani advises: "One of the most recent advancements in materials and design that can help enhance APU durability is by utilizing high-temperature alloys and coatings for parts installed in the hot section, such as the turbine wheels and compressors. This can help provide resistance to thermal stress and extend the life of the components and reduce the frequency of maintenance or replacement."



Anthony Robbins, Honeywell 36 Series APU Team Leader (UK), Standard Aero

“The two biggest factors contributing to APU maintenance costs are the cost of replacement parts and the cost of repairs. Operators are able to mitigate these costs by following recommend maintenance best practices ...”

Anthony Robbins, Honeywell 36 Series APU Team Leader (UK), Standard Aero

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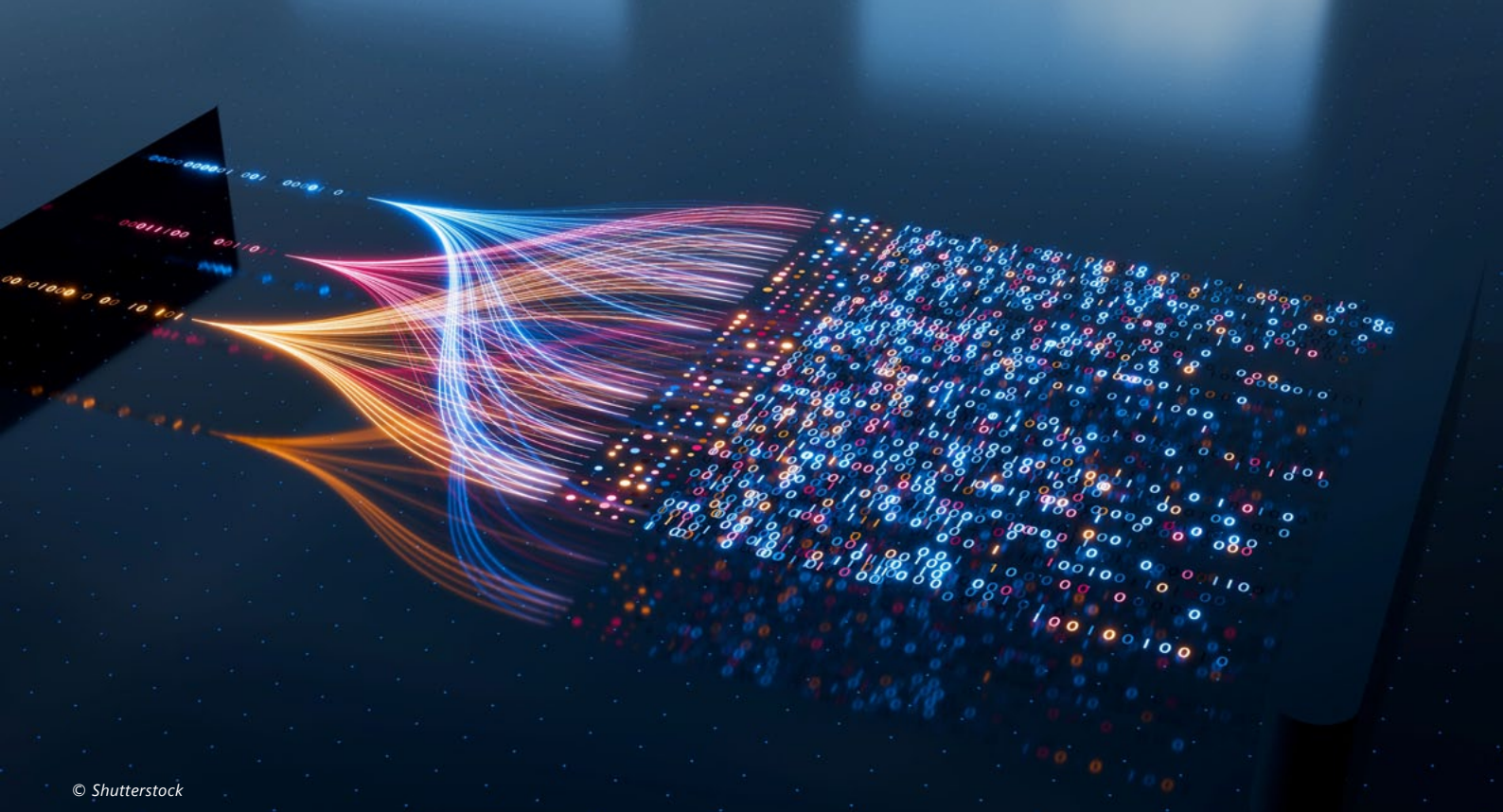


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Digitalisation of Aircraft Records

By David Dundas

There is no question that digitisation of aircraft records helps in both increasing efficiency as well as reducing the massive volumes of paperwork traditionally involved in aircraft maintenance. However, the transition to digital records was never going to be a simple one, especially when one considers that impeccable and faultless record keeping is essential not only from a safety aspect, but also from the point of view of asset value. Incomplete maintenance records can substantially reduce the value

of any aircraft, commercial or otherwise. We wanted to delve deeper into the world of aircraft maintenance record keeping to get a clearer picture of how digitisation is affecting the whole process, and to see what the future holds with regard to the development of the role of artificial intelligence (AI) in record keeping.

Why the digitalisation of aircraft records is becoming increasingly important in the aviation industry

The aviation industry remains one of the most document-intensive sectors, with MROs still relying heavily on paper-based processes for everything from repair orders and work order travellers to certifications, pick tickets, and teardown reports. Despite years of wanting to “go paperless,” the reality is that the majority of MRO workflows are still fragmented by physical paperwork. Most MROs are

starting to see the significant impact this has on operations and the difficulties involved in implementing new technologies as a result. Among a number of pain points, Monica Badra, founder of Aero NextGen, comments that: “... the lack of standardisation in MRO processes is a persistent issue, often compounded by undocumented workflows and inconsistent record-keeping. Digitalisation enforces process discipline, drives consistency, and enables benchmarking and continuous improvement—outcomes that are simply not achievable with paper.” She then concludes that: “In summary, digitalising aircraft records is about reducing risk, ensuring compliance, preserving operational knowledge, enabling new technologies, and driving efficiency across the entire MRO value chain.”

Max Lutje Wooldrik, Founder & CEO, AeroDox BV makes the situation clear in terms of financial benefits. “In today’s aviation industry, digitalisation of aircraft



Monica Badra, Founder, Aero NextGen

“In summary, digitalising aircraft records is about reducing risk, ensuring compliance, preserving operational knowledge, enabling new technologies, and driving efficiency across the entire MRO value chain.”

Monica Badra, Founder, Aero NextGen

records has become critical due to the high financial impact of AOG (Aircraft On Ground) events - costing the industry an estimated US\$50 billion annually. When documentation issues delay aircraft return to service, every hour costs between US\$20,000-US\$140,000. Beyond these immediate costs, digital records mitigate safety risks from counterfeit parts, enhance regulatory compliance, and protect airlines' reputations. With increasing industry complexity and regulatory scrutiny, paper-based systems simply can't keep pace with the demands for speed, accuracy, and security that modern aviation operations require," he advises.

Lucia Soffientini, Airworthiness Manager at Air Worthy also brings up the safety aspect: "Digital records also provide better asset protection as they are securely stored and backed up, protecting critical information from loss, damage, or unforeseen circumstances, such as fire or flooding, thereby safeguarding high-value aircraft assets. By centralising digital records, we can improve communication between MROs, operators, and regulators, which creates better transparency and more effective collaboration. It's also beneficial for predictive maintenance, helping operators to identify trends, anticipate issues and optimise maintenance schedules, to achieve increased safety and cost efficiencies." Meanwhile, Daniel Tautges, SVP at Component Control sums up the importance of the digitisation of aircraft records in two short sentences: "The aviation industry is under constant pressure to increase efficiency, reduce downtime, and maintain the highest levels of safety and compliance. Digitalising aircraft records is no longer a luxury—it's a necessity."

Sander de Bree, Chief Visionary with EXSYN Aviation Solutions is of a similar opinion to most when he explains that: "The aviation industry is under growing pressure to improve operational efficiency, regulatory compliance, and fleet readiness while reducing costs. Digitalisation of aircraft records is a crucial enabler in meeting these demands. Digital records facilitate real-time data access, reduce administrative burdens, and enable predictive maintenance and better asset value management." Meanwhile, over at Ramco Systems, Saravanan Rajarajan, AVP & Head of Consulting – Aviation, Aerospace & Defence, is focused on the benefits digitisation brings to operational efficiencies. He informs us that: "The

aviation industry consistently seeks avenues to improve operational efficiencies, and digitising aircraft records is proving to be a key driver. Having aircraft records helps in quicker retrieval of technical documents, maintenance logs and history, as well as back-to-birth traceability for troubleshooting. As organisations are adopting digital tools, digitalisation has become the default workflow mode to eliminate paper and reduce errors. The adoption of digital records as a compliance requirement by regulators also increased the momentum."

The biggest challenges faced in transitioning from paper-based to digital records

The transition from paper to digital records presents several key challenges. Legacy systems integration is often complex, with decades of historical records requiring conversion while maintaining data integrity. There is also significant resistance to change within established processes - aviation is understandably risk-averse, with safety protocols built around paper-based authentication. Max Lutje Wooldrik further points out that: "Regulatory compliance requires demonstrating that digital systems meet or exceed existing security standards. Additionally, standardisation challenges arise across global operations with varying requirements. Finally, the upfront investment in new technology and training can be substantial, though the long-term ROI is clear." Lucia Soffientini is also acutely aware of the problem created by the volume of existing paper records. "The biggest challenge in moving to digital records is the sheer amount of paper-based data that has to be managed. After the scanning process, records need to be appropriately sub-divided into the so-called "Delivery Bible", which has to be created in accordance with IATA standards. An aircraft's technical records are a significant part of its asset value, so the importance of complete and accurate transitioning to digitised records cannot be underestimated," she says.

Daniel Tautges not only touches on existing paper records but also questions the quality of existing data. "One of the biggest challenges is cultural; teams have relied on paper for decades, and changing habits takes time. There's also the issue of data quality: converting handwritten or legacy documentation into

usable digital formats requires accuracy and robust validation processes. Lastly, there's the challenge of integration," he comments. His solution to the problem? "That's why in Quantum Control, we've invested in building an ecosystem where Document Imaging, Maintenance Tracking, and Part History seamlessly interact to reduce manual entry and ensure records are complete, traceable, and compliant." Sander de Bree highlights many of the frequently mentioned problems when he tells us that "The transition is complex due to fragmented legacy systems, lack of standardization, data quality issues, and resistance to change among operational teams. Additionally, ensuring regulatory acceptance of digital formats poses another significant hurdle." And his alternative? "EXSYN addresses these challenges by embedding deep domain expertise into every project. Through our aircraft data migration services and our data apps, we provide a structured and proven methodology for digital transformation specifically for airlines that utilise MRO/M&E software systems—ensuring data integrity, process adaptation, and regulatory compliance are maintained throughout the journey."

"Transitioning to digital records requires significant investment in MRO Systems, integration with customer and supplier systems, end-user training on adoption, change management, regulatory approvals and legacy data conversion," Saravanan Rajarajan tells us, adding that: "Another challenge the industry has to navigate is varying levels of regulatory acceptance of digital records and varying formats of maintenance documents of older fleets to new fleets." Meanwhile, Monica Badra focuses on two areas that also deserve equal consideration when it comes to unique challenges faced with such a conversion of paper to digital maintenance records. "Regulatory compliance adds another layer of complexity. Digital records must meet strict aviation authority requirements for authenticity, traceability, and retention. Ensuring that new systems are fully compliant—and that digital signatures, audit trails, and data security measures are robust—requires careful planning and validation," she highlights, adding that: "Cybersecurity is also a growing concern. As records move online, they become a target for cyberattacks. MROs must invest in robust cybersecurity frameworks to protect sensitive data from

“Blockchain technology stands at the forefront, providing unalterable verification of document authenticity and history. Cloud-based platforms enable secure, global access to documentation.”

Max Lutje Wooldrik, Founder & CEO, AeroDox BV

breaches, ransomware, and unauthorized access.” She concludes by pointing out that “... cost and resource allocation cannot be overlooked. The upfront investment in technology, process redesign, training, and ongoing system maintenance can be significant—especially for smaller MROs operating on tight margins. We often hear MRO executives say: ‘We could be using these funds to buy more aircraft for teardown or parts to trade; there is a direct and large opportunity cost of investing in digital projects.’ Demonstrating ROI and securing executive buy-in is often a challenge in itself.”

The key technologies driving the digitalisation of aircraft records

Monica Badra also advises us that the digitalisation of aircraft records in the MRO sector is being accelerated by several core technologies that address the industry’s need for accuracy, traceability, and efficiency, which will involve cloud-based document management systems, Optical Character Recognition (OCR) and Intelligent Document Processing (IDP), blockchain, Artificial Intelligence (AI) and Machine Learning (ML), Robotic Process Automation (RPA), e-Signature and digital authentication tools, mobile applications and connected devices, and integration platforms (APIs and Middleware).

“These technologies, when strategically implemented, not only digitise records but also lay the groundwork for advanced analytics, improved regulatory compliance, and a more agile MRO operation,” she concludes. Daniel Tautges concurs with Badra in a number of areas as he tells us: “Cloud computing, optical character recognition (OCR), and integration platforms are key drivers. Within Quantum Control, our cloud-hosted ERP enables customers to access aircraft records securely from anywhere. Our eSignature capabilities allow digital sign-offs on maintenance and inspection records.

Additionally, we continue to see demand for integrations with barcode and part number scanning—especially when paired with our Mobile Warehouse and Work Order Kiosk modules, which push real-time data from the floor into the digital record.”

Sander de Bree lists cloud platforms for scalable data storage and access, ETL (Extract-Transform-Load) pipelines for data ingestion and standardisation, and again like Badra mentions blockchain for immutable audit trails and APIs and data lakes for integration across systems, as well as AI/ML for data extraction, classification, and anomaly detection. He then informs us that “EXSYN’s NEXUS platform incorporates modern ETL capabilities, integration layers, and automation routines that support fast, scalable, and secure digitalisation initiatives. These technologies allow EXSYN to help operators convert their data assets into strategic advantages.” Meanwhile, Saravanan Rajarajan also highlights the influence of OCR as he explains: “OCR technologies do the heavy lifting in driving digitalisation. They have become more efficient, even converting scanned documents and handwritten notes into structured, searchable digital text. Organisations need to leverage other enabling technologies to get the real value. The data entry point for users should support both structured and unstructured data. For example, while reporting a snag, the mechanics should be able to both type in the data and upload photos, audio, or video files. Replacement of DFP with secure e-sign off augments the digitisation process in compliance with regulatory regimes,” while adding: “The seamless, connected digital ecosystem with suppliers and customers is essential to extending digitalisation benefits and augmenting operational efficiency.”

Also in accord with Badra, Max Lutje Wooldrik highlights blockchain, cloud-based platforms, mobile technologies, APIs and OCR as key technologies. “Blockchain technology stands at the forefront, providing unalterable verification



Max Lutje Wooldrik, Founder & CEO, AeroDox BV

of document authenticity and history. Cloud-based platforms enable secure, global access to documentation. Advanced encryption ensures data security while enabling authorised sharing. Mobile technologies allow for real-time document verification in hangar environments. APIs facilitate seamless integration with existing MRO and ERP systems. And finally, automated document processing with OCR and machine learning reduces manual input while enhancing accuracy,” he tells us. And to back up everyone else, Lucia Soffientini identifies three of the elements most are in agreement with as she explains: “One of the fundamental technologies driving digitalisation is Optical Character Recognition (OCR), which automates the digitisation of paper documents, making historical records searchable and accessible within digital systems. Also, cloud computing enables secure, centralised storage and instant access to records from anywhere, improving efficiency and reducing the risk of lost documentation. We are also seeing the rise of AI and Machine Learning for areas such as analysis and structuring, predictive maintenance and compliance checks.”

How blockchain and cloud-based solutions enhance the security and integrity of digital records

Monica Badra informs us that blockchain and cloud-based solutions are fundamentally reshaping the way MROs manage digital records, especially in terms of security and data integrity. Blockchain technology creates an immutable, time-

stamped ledger of every transaction or change made to a record. Once data is entered into a blockchain, it cannot be altered or deleted without leaving a trace. This tamper-evident structure is ideal for maintaining the authenticity and traceability of maintenance events, parts histories, and regulatory certifications. Each stakeholder—MROs, airlines, regulators—can access a single, verified source of truth, which virtually eliminates disputes over record accuracy and supports regulatory compliance. Cloud-based solutions, meanwhile, deliver robust security through advanced encryption, access controls, and continuous monitoring. Data is stored offsite in secure data centres with multiple redundancies, protecting it from physical loss, disasters, or local system failures. Cloud platforms also support granular permission settings, so only authorized personnel can view, edit, or share sensitive records. Regular security updates and compliance certifications (such as ISO 27001 or SOC 2) further strengthen the protection of digital records. She concludes that: “Together, blockchain and cloud-based solutions ensure that digital aircraft records are not only accessible and efficient to manage, but also secure, auditable, and resilient against both internal and external threats. This dual approach is increasingly recognized as best practice for safeguarding the integrity of critical aviation data in a digital-first environment.”

Max Lutje Wooldrik and Sander de Bree also both highlight the security element of blockchain and the creation of an immutable record. Wooldrik goes on to explain that: “At AeroDox, we use multi-level blockchain storage options, including our Level 3 “Ultimate Proof” that utilises multiple blockchains for redundancy even if one blockchain or our platform were to cease operating. Meanwhile, cloud-based solutions provide geographical redundancy, ensuring records remain accessible and protected against physical damage or loss. Together, these technologies establish an unprecedented level of trust in aviation

documentation.” In addition, de Bree tells us that “EXSYN leverages secure cloud hosting (e.g., in our platform apps) and has the technical capability to integrate data from MRO/M&E systems to blockchain networks. These architectures are designed to meet the aviation industry's highest standards for data integrity and regulatory compliance.”

Finally, Daniel Tautges adopts a cautious approach, advising that: “Blockchain has potential for providing a tamper-proof ledger of maintenance activity, but most MROs and operators are still in the early stages of adoption. Cloud-based ERP systems, however, are already providing high levels of security and audit traceability. With Quantum Control's cloud infrastructure, powered by Amazon Web Services, customers benefit from encryption, role-based access, and automatic backups—ensuring that aircraft records are both protected and permanently accessible, even during audits or lease transitions.”

The roles artificial intelligence (AI) and machine learning play in managing and analysing digital aircraft records

Artificial intelligence (AI) and machine learning (ML) are transforming how digital aircraft records are managed and analysed in the MRO sector. Their role extends beyond simple automation—they are enhancing accuracy, efficiency, and strategic decision-making across maintenance operations. AI and ML algorithms can automatically extract, classify, and validate data from a wide variety of digital records, including maintenance logs, inspection reports, and compliance documents. This minimises manual data entry, reduces errors, and ensures that records are consistently organised and easily searchable. Predictive maintenance is one of the most impactful applications. By analysing historical maintenance records, real-time sensor

data, and operational trends, AI/ML models can predict component failures or maintenance needs before they occur. According to recent industry research, predictive analytics can reduce unscheduled aircraft maintenance by up to 30% and lower maintenance costs by up to 22%. This not only minimises downtime and extends component life but also optimises inventory management and resource allocation.

Monica Badra at Aero NextGen goes on to tell us that: “AI-driven analytics also support regulatory compliance and quality assurance. Machine learning models can flag anomalies, identify patterns of non-compliance, and ensure that records meet evolving regulatory standards. This proactive approach helps avoid costly audits and penalties. Moreover, AI bridges communication gaps between departments by providing a unified view of maintenance needs, improving collaboration and coordination. AI-powered dashboards and reporting tools deliver actionable insights to both technical and management teams, enabling faster, data-driven decisions. In summary, AI and machine learning are critical enablers for maximizing the value of digital aircraft records. They drive efficiency, reduce operational costs, enhance safety, and support continuous improvement in MRO operations.”

Over at Component Control, Daniel Tautges points out that AI and machine learning are transforming how we interact with large volumes of historical data. Predictive analytics, for instance, can flag recurring component failures or maintenance trends. He then goes on to advise that: “In Quantum Control, we are actively enhancing our Resource



Daniel Tautges, SVP, Component Control

“Blockchain has potential for providing a tamper-proof ledger of maintenance activity, but most MROs and operators are still in the early stages of adoption. Cloud-based ERP systems, however, are already providing high levels of security and audit traceability.”

Daniel Tautges, SVP, Component Control

Planning, Work Order and Customer Service modules with AI-assisted tools to surface insights from historical work orders, inspections, and parts usage. These insights empower MROs and operators to make proactive, rather than reactive, decisions.” Interestingly, Max Lutje Wooldrik at AeroDox makes mention of how AI can look into our past to help improve our future, telling us that: “AI and machine learning are revolutionising how we interact with aviation documentation. These technologies enable automated validation of documentation completeness, flagging missing or expired certificates. Pattern recognition identifies potential compliance issues before they become regulatory problems. Advanced search capabilities locate specific information across thousands of documents in seconds. Predictive maintenance becomes possible by analysing maintenance records alongside operational data. And perhaps most valuably, AI can extract actionable insights from historical records to improve future maintenance planning and inventory management.” Likewise, Sander de Bree also points to predictive analytics as he explains: “AI/ML techniques streamline the processing of unstructured maintenance documents, automate anomaly detection, and enable predictive analytics. This supports better decision-making and reduces the risk of compliance violations. EXSYN applies AI/ML within AVILYTICS, allowing operators to move from reactive to predictive maintenance strategies. Our systems ingest aircraft data and apply analytics to identify reliability trends, potential component failures, and optimisation opportunities—driving value



Saravanan Rajarajan, AVP & Head of Consulting – Aviation, Aerospace & Defence, Ramco Systems

directly from digitalised information.”

To close, Saravanan Rajarajan at Ramco Systems looks to the benefits that OCR brings with it. “The MRO maintenance process typically generates a wealth of data pertaining to defects, parts consumed, labour hours, elapsed time, etc. Accumulated over time, this data can be converted into a competitive advantage by leveraging AI/ML tools. OCR powers the extraction of data from legacy paper documents and AI/ML tools utilise this data to perform classification, anomaly detection, or provide suggestions. For example, when a mechanic reports a defect, the system leverages the historical records pertaining to the type of aircraft and ATA code to suggest a list of similar defects that were resolved in the past. Based on the mechanic’s decision, the system prompts the resolution options, reference manuals, and parts and tools required to fix the defect. However, the final determination of accepting the recommendations still lies with the mechanics. AI/ML-based chat assistants allow users to interact with the backend aircraft record through plain text inputs and generate insights for decision-making,” he advises.

How airlines and MROs can ensure seamless integration between different digital record-keeping systems

Ensuring seamless integration between different digital record-keeping systems is a major challenge for airlines and MROs, given the diversity of legacy platforms, ERPs, and specialised maintenance solutions in use across the industry. According to Daniel Tautges, “The key is to adopt platforms that are open, modular, and API-driven. Quantum Control offers robust integration capabilities through our suite of APIs that allow customers to connect seamlessly with e-signature tools, OEM portals, lessor platforms, and regulatory marketplace systems.

Whether it's syncing logbook entries with maintenance forecasts or updating records across partner systems, integration is about enabling a single source of truth—accessible across the organization,” he tells us. Max Lutje Wooldrik is a proponent of a multi-faceted approach as he explains: “Successful integration requires a multi-faceted approach. First, adopting industry-standard APIs and data formats creates inter-operability between systems. Open architecture platforms like AeroDox can function as middleware between legacy systems and newer technologies. Phased implementation approaches minimise operational disruption while allowing for incremental improvements. Collaborative industry initiatives like Blockchain for Aviation (BC4A) help develop shared standards. And finally, selecting solutions with strong integration capabilities from the start prevents creating new data silos.”

Both Saravanan Rajarajan and Sander de Bree provide succinct responses. “Airlines, MROs, and OEMs use different software platforms and data exchange policies. Adopting industry standards like Spec 2000 or data models like S1000D will ease the onboarding process and reduce system-specific changes. Data exchanges between the organizations must be enabled through an API to ensure security and interoperability,” says Rajarajan, while de Bree concurs, adding that “Seamless integration requires interoperability frameworks (e.g., S1000D, ATA Spec standards), open APIs, robust data governance models, and a centralised data operations layer.”

Monica Badra goes into considerable detail as she advises that several proven strategies and best practices can significantly improve integration outcomes, including adopting industry standards and data formats, leveraging APIs and Middleware, prioritising interoperability during vendor selection, implementing Master Data Management (MDM), continuous testing and validation, early

“Airlines, MROs, and OEMs use different software platforms and data exchange policies. Adopting industry standards like Spec 2000 or data models like S1000D will ease the onboarding process and reduce system-specific changes.”

Saravanan Rajarajan, AVP & Head of Consulting – Aviation, Aerospace & Defence, Ramco Systems

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involvement of stakeholders, and planning for scalability and future growth. “By following these best practices, airlines and MROs can achieve seamless, efficient, and reliable integration between digital record-keeping systems—ensuring that critical data flows smoothly across operations, supports compliance, and enables advanced analytics,” she says.

What the next expected major developments in aircraft record digitalisation will be

Here the recurring theme among respondents would appear to be digital twins and an increased use of AI. “We’re heading towards fully integrated digital twins where physical aircraft have comprehensive digital counterparts including complete documentation history,” says Max Lutje Wooldrik. “Advanced analytics will increasingly provide predictive insights from historical records to optimise operations. Mobile verification technologies will become standard for field technicians. Industry-wide blockchain networks will enable seamless verification across the supply chain. And regulatory authorities are increasingly accepting fully digital documentation methods, accelerating adoption industry-wide,” he adds. Beyond this, Saravanan Rajarajan makes it very clear that “There is a need for collaboration and alignment between industry bodies, lessors, aircraft manufacturers (OEMs), airlines, MROs, and regulators to set interoperability standards, data structures, formats, and protocols, and enforce compliance,” adding that: “Currently, there are challenges with siloed blockchain networks, which limit



Sander de Bree, Chief Visionary, EXSYN Aviation Solutions



the potential. Another limiting factor is whether the chain includes all the supply chain players, including the MROs, tier-2 & -3 suppliers, etc. Arriving at the standards and alignment will bring in data integrity, making it nearly impossible to falsify maintenance or certification history.”

Sander de Bree anticipates regulatory standardisation for e-signatures and digital logbooks, end-to-end digital aircraft lifecycle records (from OEM to phase-out), increased use of AI for automated airworthiness assessments, digital twins and real-time record syncing from sensor data, while pointing out that “EXSYN is actively contributing to this future by helping shape digital MRO ecosystems and embedding data integrity, traceability, and automation into every aspect of aircraft configuration and airworthiness management.” Beyond this, as well as AI, Daniel Tautges talks about ‘mobile-first tools. “We expect more AI-powered automation, real-time collaboration with OEMs, and tighter integration with third-party systems. Another major development is the use of mobile-first tools—mechanics on the shop floor want to update digital records instantly, not at the end of their shift. That’s why we continue investing in our Mobile Maintenance and Digital Task Card functionality within Quantum Control, reducing the friction between performing

work and documenting it,” he comments.

According to Monica Badra, one key development is the adoption of end-to-end digital workflows powered by AI, IoT, and cloud-native platforms. MROs can easily find their match after completing a short survey. These systems will enable real-time data capture directly from the shop floor, integrating inputs from technicians, sensors, and connected tools into a unified digital record. This will reduce manual data entry, minimise errors, and provide instant access to up-to-date maintenance histories. She then explains that another major development is the increased use of blockchain for secure, tamper-evident record-keeping and regulatory compliance. As more aviation authorities and OEMs recognise blockchain’s potential, we can expect broader industry adoption for tracking parts provenance, maintenance events, and airworthiness certifications—creating a single source of truth accessible to all stakeholders. She then expands further. “Interoperability is also advancing, with the emergence of open data standards and low-code integration platforms. These tools will allow airlines, MROs, lessors, and regulators to seamlessly exchange digital records across different systems, eliminating silos and manual reconciliation. This is especially important as M&A activity and global fleet growth increase

“EXSYN is actively contributing to this future by helping shape digital MRO ecosystems and embedding data integrity, traceability, and automation into every aspect of aircraft configuration and airworthiness management.”

Sander de Bree, Chief Visionary, EXSYN Aviation Solutions

the complexity of record management. Augmented Reality (AR) and Mixed Reality (MR) are set to play a bigger role in both record-keeping and technician training. By overlaying digital records and instructions onto physical assets, AR/MR will streamline maintenance processes, reduce errors, and accelerate onboarding for new staff. Finally, predictive analytics and advanced reporting will become standard, leveraging the vast amounts of structured digital data now available. These tools will support proactive maintenance planning, regulatory audits, and business intelligence, driving higher efficiency and compliance. In summary, the next phase of digitalisation will be characterised by intelligent automation, secure and interoperable data exchange, immersive technologies, and data-driven decision-making—transforming aircraft record management into a strategic asset for MROs and airlines.”

Could digitalisation eventually eliminate the need for physical aircraft records?

Ever since the digitisation of aircraft records began, this has been the question on most people’s lips. However, the answer is not that simple, primarily because of the overarching nature and reason for aircraft maintenance documentation – regulatory compliance and rigorous safety measures. Add to that a reluctance for change and total industry adoption and then there is a possibility all aircraft records could become digital. As Monica Badra tells us: “In many regions, digital records are already recognised as legally equivalent to paper originals, provided they meet strict requirements for authenticity, traceability, and security. Cloud-based platforms, blockchain, and advanced digital authentication tools now make it possible to create, store, and manage aircraft records entirely in digital form—accessible instantly and protected against loss or tampering. However, the complete elimination of physical records is still challenged by inconsistent global

regulations, legacy processes, and the need for interoperability across diverse stakeholders. Some authorities and lessors still require or prefer hard copies for certain transactions or audits, and many organisations maintain physical backups as a risk-mitigation strategy. That said, the direction of travel is clear: as regulators, OEMs, airlines, and MROs gain confidence in the reliability and security of digital solutions, the industry will steadily move toward fully paperless record-keeping.”

“The aviation industry is undoubtedly moving toward a fully digital future, but the transition will be gradual,” says Max Lutje Wooldrik. “Digital records offer superior security, accessibility, and efficiency compared to physical documentation. Regulators are increasingly accepting digital verification with proper controls in place. The COVID-19 pandemic accelerated digital adoption by forcing remote work and reducing physical document handling. In AeroDox’ view, physical records will become increasingly rare and eventually obsolete, but the transition must be managed carefully to maintain the industry’s exceptional safety record,” he concludes.

Lucia Soffientini at Air Worthy concurs with Monica Badra and what is already accepted in terms of digital records. “Yes, this is already happening. Aviation regulatory authorities already allow record keeping either with hard copies or EDP (Electronic Data Processing) versions. Some operators are also using electronic Aircraft Technical Logs to avoid paper on sustainability grounds and there are some Maintenance Tracking Systems in the industry that are completely paperless. Regulatory acceptance is advancing, with many authorities now supporting electronic records, and industry surveys show most operators face few regulatory barriers to digital adoption. Technologies like AI and blockchain are making digital records even safer and more reliable. Whilst there is some resistance, mainly due to concerns about data security, the switchover to digital records is becoming the norm and

the need for physical records is diminishing. We expect that the advance of digitalisation will eventually eliminate the need for physical aircraft records, but the timetable is not fixed on this,” she advises.

Daniel Tautges, Sander de Bree and Saravanan Rajarajan are also all in agreement that it is pretty much a question of ‘when’, not ‘if’, in terms of aircraft maintenance records becoming fully digital as the norm. “Although some operators may continue to use hybrid systems in the near term—due to legacy infrastructure or regulatory constraints—the long-term direction is clearly toward fully paperless airworthiness environments,” says de Bree. “Though the timeline is uncertain, digitalisation will eventually eliminate the need for physical aircraft records. This change will arise due to several factors, such as operational efficiency needs, regulatory compliance requirements, momentum, technological advances and environmental needs. The rate of change may vary depending upon the regulatory regimes and organizations’ trust in technology,” explains Saravanan Rajarajan. “Regulators in multiple regions now accept digital records as the source of truth, provided they meet traceability and integrity standards. With Quantum Control’s Document Imaging and Certification Tracking, physical binders are quickly becoming obsolete. That said, complete industry-wide transition requires continued alignment between software providers, OEMs, lessors, and regulatory bodies—but we’re well on our way,” concludes Tautges.



Lucia Soffientini, Airworthiness Manager, Air Worthy

“Regulatory acceptance is advancing, with many authorities now supporting electronic records, and industry surveys show most operators face few regulatory barriers to digital adoption.”

Lucia Soffientini, Airworthiness Manager, Air Worthy



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Giuseppe Renga, CEO AMROS Group

“ The older the aircraft, the bigger the “paper mountain.” ”

Shiny new aircraft tend to steal the spotlight with their sleek designs, state-of-the-art technology, and promises of efficiency. They capture the hearts of passengers and engineers alike. But behind the curtain of innovation, an often-overlooked reality persists: the skies are still full of aging aircraft.

While everyone's admiring the latest jets, there's a quiet revolution that needs just as much attention: the digitalisation of older aircraft. They might not sparkle like the latest generation of jets, but older aircraft still carry the weight of responsibility — and an ROI opportunity!

Here are five reasons why digital transformation isn't just a 'nice-to-have' for older aircraft — it's essential:

1. Older Aircraft as Part-Out Candidates

As aircraft age, many are retired and broken down into parts for resale. In this phase, value depends almost entirely on documentation. Accurate, verified records for components make them easier to sell and more valuable to buyers. Digitised records simplify this by making every detail instantly available, from installation to the last service.

2. Managing Extensive Records

The older the aircraft, the bigger the “paper mountain.” Decades of logbooks, service reports, and modification records pile up, and often spread across continents and boxes. Digitalisation transforms this chaos into searchable, organised data. Not only does this save time, but it also minimises human error and protects against the risk of lost or damaged documents.

Why Old Aircraft Need Digitalisation More Than Ever

Written by Giuseppe Renga, CEO of AMROS Group and Co-Developer of LISA Aircraft Records Management – the innovative, AI-powered, digital solution designed specifically for airlines and lessors. AMROS Group has managed over 700 aircraft transitions worldwide, with more than 100 of those utilising LISA to streamline operations and maximise asset value.

“ Digital records unlock predictive maintenance strategies by analysing historical data.”



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3. Ensuring Records Transparency

Incomplete or unclear records are a deal-breaker in aircraft leasing, sales, or audits. For older aircraft, this is especially risky, as many documents may be handwritten, duplicated, or missing. Digital records bring clarity. Stakeholders gain full visibility into the aircraft's history, enabling faster transactions, easier inspections, and fewer disputes.

4. Addressing Reliability Issues

Let's face it: older aircraft need more maintenance. But that doesn't mean they're unreliable — not if you can see the patterns. Digital records unlock predictive maintenance strategies by analysing historical data. With the right tools, operators can spot trends, forecast

issues before they occur, and schedule maintenance more efficiently, reducing downtime and costs.

5. Enhancing Asset Value

The value of older aircraft is significantly influenced by their maintenance history and component condition. When those records are digital, structured, and verified, they become a strategic asset. Investors, lessors, and buyers gain confidence, and owners maximise returns right up to — and even beyond — the aircraft's final mission.

Smart Gains from Going Digital

- **24/7 Access Anywhere:** No more digging through boxes. Authorised users can access critical records instantly —

whether they're at HQ, on the tarmac or sipping on their drink by the pool.

- **Back-to-Birth Traceability:** Every part, every certificate, every inspection clearly documented from day one.
- **Regulatory Readiness:** Digital records make audits smoother and compliance quicker. Regulators appreciate structured and transparent data.
- **Better Decisions, Faster:** Clear data enables better planning, smarter investments, and fewer surprises.

In a world where data is everything, leaving decades of aircraft history in dusty binders isn't just outdated, it's risky. Older aircraft may be approaching retirement, but digitalising their records gives them a second life: in part-outs, in resale, and in maximising value until their very last flight.

AVIATION LIFECYCLE SOLUTIONS



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- Minimize Aircraft & Engine Downtime
- Improve Maintenance and Operating Cost
- Optimize Asset Value Realization
- Access Highest Quality Genuine OEM Parts & Services



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The Importance of Data Management in an Aircraft MRO Supply Chain

By David Dundas

Perhaps more than in any other industry apart from healthcare, safety, efficiency, accuracy and reliability are cornerstones of the aviation industry, and aircraft Maintenance, Repair, and Overhaul (MRO) operations form the backbone of aviation safety, ensuring that aircraft remain totally airworthy throughout their lifecycle. However, to operate effectively, MROs require a healthy supply chain that can provide the necessary tools, machinery, parts and documentation in a highly complex and data-driven environment where management of that data is key to smooth and safe operations. At the core of everything, data management is responsible for overseeing operational efficiency and ensuring compliance with stringent regulatory standards.

Understanding the MRO Supply Chain

For a number of reasons, the supply chain for the MRO sector is not like a 'normal' industrial supply chain. First there is a level of unpredictability with regard to demand for certain aircraft parts, plus there can be long lead times for those parts if they are new OEM (original equipment manufacturer) ones as opposed to USM (used serviceable material) parts. Beyond this, many aircraft and engine parts are highly specialised, and everything that is provided also comes with legally required and comprehensive documentation and traceability. As a consequence, this complexity demands precise coordination and effective information sharing among manufacturers, parts suppliers, logistics providers,

maintenance crews, and regulatory bodies. In reality, data is the delicate thread that connects these stakeholders—providing real-time visibility, traceability, and control across the entire supply chain.

The Role of Data Management

Data management in the MRO supply chain refers to the systematic overseeing of data primarily related to inventories, parts tracking, maintenance history, logistics, supplier performance, compliance records, and more. Thus, in a perfect world, effective data management should result in the timely availability of parts, reduced costs, minimised downtime, and enhanced safety. So how can this be achieved? Let's look at half a dozen of the principal elements of effective data management:



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• **Inventory optimisation:** One of the greatest challenges facing an MRO operation is holding the optimum amount of inventory. The cost of aircraft parts is huge, yet not holding sufficient numbers or even lacking a vital part entirely could be costly for the business and the carrier. To optimise MRO inventory, effective data management can enable predictive analytics and demand forecasting, helping MRO providers to stock the right components at optimum levels. This is particularly crucial for high-cost, low-usage parts where excess inventory ties up both too much capital and shelf space.

• **Real-time parts' tracking:** With aircraft flying all over the world, MRO providers have to provide various parts on a global basis as despite scheduled maintenance that carefully takes into account the potential lifecycle of parts, parts can still fail unexpectedly. Consequently, parts can frequently travel across the globe at short notice for a repair or replacement. Failed parts can lead to an AOG situation (aircraft on the ground) which is costly for any carrier, so the more rapid the response to a needed part, the less the economic fallout. Data systems that offer real-time visibility into parts location, condition, and status help to ensure efficient logistics and reduce AOG time. This capability can also facilitate faster decision-making and coordination between depots, repair shops, and suppliers.

• **Regulatory compliance and traceability:** Aviation authorities such as the FAA (Federal Aviation Administration) and EASA (European Union Aviation Safety Agency) require strict adherence to maintenance procedures and

documentation and that every part installed on an aircraft must have a traceable history. Data management systems can ensure that maintenance records, certifications, service bulletins, and airworthiness directives are properly documented, accessible, and compliant with all applicable regulations.

• **Lifecycle management:** Aircraft components often have finite lifespans measured in cycles, hours, or calendar days. As a consequence, managing the lifecycle of each part through digital systems helps considerably in the accurate prediction of maintenance needs, scheduling of preventive checks, and planning part replacements, consequently reducing unplanned downtime and extending asset life.

• **Supplier performance monitoring:** A supply chain is only as strong as the suppliers involved, so there is a need for data systems which can help evaluate supplier performance by tracking on-time delivery rates, quality metrics, and service responsiveness. As a result, this information can help foster better supplier management and sourcing decisions.

• **Digital twin and predictive maintenance** - The arrival of digital twins is proving to be something of a gamechanger in the MRO field, but these virtual replicas of physical systems rely extensively on robust data infrastructure. However, through combining sensor data with historical maintenance records, predictive maintenance models can foresee potential failures before they occur which, in turn, can reduce incidences of unscheduled repairs, cut maintenance costs, and enhance operational readiness.

Challenges faced in data management

While digitalisation has drastically changed the data management landscape, there is no escaping what is best referred to as legacy IT systems, data silos, inconsistent data standards, and cybersecurity threats, all of which are capable of hampering integration and collaboration. Beyond this comes the challenge of handling data that comes in various forms, from handwritten maintenance logs to sensor outputs—all of which require sophisticated tools and processes for effective management of the data involved. In addition, the implementation of centralised MRO platforms and enterprise resource planning (ERP) systems significantly helps to unify data across departments and locations, streamlining operations and providing a single source of facts.

In conclusion

Data management is as much a critical element of MRO operations as aircraft parts themselves. Effective data management can lead to the seamless operation of the MRO supply chain, ensuring that the right part reaches the right place at the right time, together with the necessary documentation and history. As the aviation industry further embraces digital technologies, investing in robust data management capabilities is not just advantageous, it is essential for increased safety, compliance, cost-efficiency, as well as future competitiveness.



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Can One Trust AI Data Management?

By David Dundas

One of the problems with artificial intelligence (AI) is that only those involved in the creation of AI systems fully understand how everything works, and the end user is left to place an immense amount of trust in what they have been presented with. Another problem with AI is the quality of the data it is trained on – poor data equals poor results. However, that is just scratching the surface, as the efficiency with which AI can deal with substantial volumes of data is a massive seduction, both in terms of organisation and also analysis. Many businesses and organisations today, even governments, rely on AI-based systems that are capable of managing vast datasets. However, there still remains the burning question: can you trust AI data management?

This question has no straightforward yes or no answer as we are not just talking about pure facts and figures. It is important to acknowledge that there are also ethical, legal and philosophical aspects. This is primarily because trust in AI data management encompasses a range of issues, including accuracy, bias, transparency, security, and accountability. In trying to establish whether or not AI can be trusted with data, you have to examine not only the capabilities of the technology but also the integrity of the systems that create, train, and oversee it.

Understanding AI Data Management

One of the main attractions of AI is the ability to take data and identify patterns and anomalies, make predictions, and

provide real-time insights at a scale and speed beyond human capacity. It is able to do this through optimising the processes involved in data handling, including data collection, cleaning, categorisation, storage, governance, analysis, and even disposal. There are several other critical advantages of AI, and those include a reduction in human error, the processing of large volumes of data efficiently, and the use of predictive analytics to support decision making.

This works well in such industry sectors as healthcare, e-commerce, finance and logistics, but does the key driver for its uptake – efficiency – merit AI being trusted implicitly? Perhaps more is needed.

Without reliability, there can be no trust

For AI to be trusted in data management, it has to operate consistently and accurately, which is wholly dependent on the quality of the data used to train it, the algorithms underpinning it, and the oversight mechanisms in place. Poor-quality or biased training data can lead to skewed results, with potentially serious consequences. In addition, AI systems can produce what are known as “hallucinations”—outputs that appear coherent but are factually incorrect. In a data management context, such errors can lead to false reporting, flawed analysis, and poor decision making.

Lack of transparency

One of the biggest problems when it comes to trusting a new system is

overcoming a lack of much-needed transparency. One of the criticisms frequently levelled at AI data management is the “black box” nature of many models, particularly deep learning systems. What this means is that decisions reached through the use of AI leave us wondering on what basis those decisions were made. For example, if you take the fields of healthcare and criminal justice, decisions made ideally need to be explained and justified.

To overcome this problem, Explainable AI (XAI) has been introduced to develop models that can offer insight into their decision-making processes. However, while some progress is being made, true explainability remains a challenge, especially in more complex systems. To put it more simply, for users of AI to trust in what it is achieving, we need to have a better understanding of why it is doing what it does.

Data security and privacy

Data security is the cornerstone of so many businesses today. Consequently, many now have a CISO (Chief Information Security Officer) as part of the ‘main team’, whereas in years gone by, those in charge of digitisation and cyber security were almost seen as a totally separate arm to ‘the business’. Their role, and the aim of any company with a need to keep data secure is to ensure it is adequately shielded from malicious breaches, abuse/misuse, and unauthorised access.

AI is now being explored as an additional tool to enhance cyber security



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through its ability to detect anomalies, prevent fraud and create an automatic response to any threats. However, AI also has the potential to become a 'Trojan horse' in that many AI-related systems have a particular vulnerability to malicious attacks, data poisoning, and model inversion, where attackers try to reconstruct training data. In addition, the use of AI in data management must align with privacy regulations such as the General Data Protection Regulation (GDPR). Questions also arise around data consent, retention, and the right to be forgotten, especially when AI models are trained on personal data.

Governance, Accountability and the Human Error Factor

It seems that no matter how 'foolproof' we make any system, at the end of the day it is only as good as the people overseeing

and operating it. When an AI-related system is responsible for a mistake, who is ultimately responsible? The developer, the data scientist, the organisation deploying it? Without clear governance frameworks, it becomes difficult to assign blame, or of greater importance, rectify any errors. Consequently, trustworthy AI data management requires very robust oversight, regulatory compliance, and ethical standards. Initiatives like the EU's AI Act and the UK's AI white paper aim to provide guidance, but despite this guidance, implementation and enforcement remain continual challenges.

One also has to look the principles of the ethical use of AI. Here we are talking about fairness, transparency, and human-centred design, all of which must be embedded into systems from the very outset. This includes diverse data teams, inclusive datasets, and rigorous impact

assessments.

'Human in the Loop' Systems

Currently AI cannot operate without human oversight, despite its level of sophistication, and human judgement and input are still required. This results in what can best be described as a 'hybrid scenario', or 'human-in-the-loop' system, where humans oversee, validate, or intervene in AI decisions, offering a hybrid approach that combines the strengths of AI with human intuition and ethical reasoning. For the time being, and putting the potential for human error aside, through maintaining a role where humans oversee the use of AI, this helps avoid situations where there is an over-dependence on automation.

In conclusion...

Can one trust AI data management? The simple, and therefore perhaps inconclusive answer, is yes, but only conditionally. AI offers enormous potential to transform data management through speed, scalability, and precision, but this potential must be harnessed responsibly. Trust in AI is not automatic—like trust in humans, it must be earned and maintained through transparency, accountability, and ethical practices.

We also have to look at the human element that still oversees the use of AI data management. Thus, with the right frameworks, oversight, and values in place, AI can indeed be a trustworthy steward of data, but be cautious, as without them, the risks may outweigh the rewards.



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PEOPLE

»»»»→ *on the move*



William Hynett

Britten-Norman, the British aircraft manufacturer known globally for its Islander series, has announced that **William Hynett OBE** will transition from his role as Chief Executive Officer to become a Non-Executive Director on the company's Board. After more than two decades of dedicated leadership, Hynett will now focus on shaping the company's strategic direction as it enters a new phase of investment, innovation, and development. This planned leadership change comes at a critical juncture for Britten-Norman, as the company positions itself for long-term growth and operational expansion. The Board has paid tribute to Hynett's remarkable tenure, which has seen him steer the company through multiple aerospace industry cycles and establish it as a cornerstone of the UK's sovereign manufacturing capability. "William has been the driving force behind Britten-Norman's continuing resilience and growth," said Chair of the Board, **Alison Rankin Frost**. She praised his exceptional knowledge of the business and longstanding dedication to British industry, noting the Board's delight that he will continue to offer strategic guidance in his new role. During his time as CEO, Hynett led significant transformation across the business, including infrastructure upgrades, improved customer support, and the re-shoring of Islander production from Romania back to the UK. This move reinforced the company's heritage and its commitment to domestic manufacturing. Under his leadership, Britten-Norman strengthened its global client base and secured its status as a strategic asset within the UK's aerospace sector. Hynett's transition comes as Britten-Norman secures significant new investment aimed at expanding manufacturing capabilities at its Solent and Isle of Wight, UK facilities, setting the stage for the company's next chapter.



Ton Dortmans

IndiGo has announced that **Ton Dortmans** will join the airline in mid-August 2025 to support the technical entry into service of its new Airbus A350 aircraft. He will also play a key role in advancing IndiGo's maintenance, repair and overhaul (MRO) strategy and capabilities. Dortmans brings with him a distinguished 40-year career in aviation, most notably at KLM Royal Dutch Airlines, where he held various senior roles. For the past 13 years, he served as Executive Vice President for KLM Engineering & Maintenance. As part of IndiGo's strategic roadmap, "Towards New Heights and Across New Frontiers," launched in mid-2022, the airline has embarked on a number of transformative initiatives. One of these includes the order of Airbus A350 wide-body aircraft, powered by Rolls-Royce engines, with deliveries expected to begin in 2027. The operation and maintenance of these wide-body aircraft will be a significant milestone for IndiGo, marking its expansion into a new segment of commercial aviation. In line with its growing fleet—which currently exceeds 400 aircraft—and over 900 more on order, IndiGo is investing in expanding its in-house

MRO capabilities in India. The airline recently opened its second hangar in Bengaluru in 2023 and plans further development to support its long-term growth. Dortmans will report to IndiGo's Chief Operating Officer, **Isidro Porqueras** and will work closely with the airline's Senior Vice President of Engineering, **Parichay Dutta**. In addition, IndiGo continues to grow its international footprint. The airline recently established an office in Amsterdam to support its European expansion, with flights to Manchester and Amsterdam set to begin in July 2025.



Gary Lew

Aquila Air Capital (Aquila), the engine lessor backed by funds managed by New York-based global alternative asset manager Wafra, has announced the appointment of **Gary Lew** as Chief Financial Officer. Lew brings more than twenty-five years of aviation and financial industry experience to the role, with a strong focus on investment strategy, capital markets, corporate finance and asset management. He will lead the development of Aquila's financial structure and oversee all areas of corporate development, strategic financing initiatives, capital markets activity and key partnerships. Lew joins Aquila following the founding of Capitola Partners, where he led significant multi-year engagements with a global lessor, an asset trading and management firm, two major U.S.-based family offices, and an Ireland-based corporate services provider. His experience also includes key roles at Vx Capital Partners, where he built a deep network and track record as an investor, lessor, asset manager and strategic advisor. In addition to his corporate roles, Lew serves as an Independent Director for two major ABS issuances and has held academic positions as an adjunct lecturer at St. Mary's College and the UC Davis Graduate School of Management.



Alain Bellemare

Delta Air Lines has announced that **Alain Bellemare**, Executive Vice President and President – Delta International, will take on an expanded leadership role as Chairman of the Delta maintenance, repair and overhaul (MRO) Advisory Board. In this position, Bellemare will provide strategic direction, support, and guidance to Delta's commercial MRO business, working in close collaboration with **John Laughter**, Chief of Operations and President of Delta TechOps. Delta TechOps, a US\$5 billion global leader in MRO services, supports Delta's fleet as well as hundreds of airline customers worldwide. Bellemare's new role is designed to complement the operational leadership of Delta TechOps by bringing a strategic and global perspective to enhance market competitiveness, customer relationships, and long-term commercial growth. With over 25 years of global aerospace and industrial leadership, Bellemare has led major aircraft programmes and engine developments at Bombardier Inc. and United Technologies. His wealth of experience with global OEMs and advanced systems will bring valuable insight to Delta's MRO strategy.

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Tamar Jorssen
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+1.788.213.8543



Sales: Asia, Europe &
the Middle East

Malte Tamm
malte.tamm@avitrader.com
+49 (0) 162 8263049



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