

MRO

Aerospace Magazine

MRO & Digitalisation

Digital transformation for MROs has long surpassed being a buzzword



Lease Returns

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The journey towards digital transformation continues

All of the MROs that we spoke to in this edition are committed to building advanced digital capabilities to enable competitive service delivery and value creation for their customers. We know that the MRO sector has been slow to digitise processes relating to documentation but change is certainly in the air. It will take time, but like our friends at GA Telesis recently told us, digital transformation for MROs has long surpassed being a buzzword — it is a survival necessity!

In 2020, airline companies reportedly reduced their budget for IT to \$20 billion, a 60% decrease from the previous year, so aviation software and tech companies like TRAX, Rusada, SkySelect and others are pulling all the stops to push forward with digital solutions to bring the industry back in line with the digitisation progress. Obviously, in some markets airlines and MROs put these on hold until they are in a stronger financial position.

Anything from predictive maintenance to improving quotation processes, innovation has become crucial to identify, screen and solve the plethora of challenges that MROs and airlines are still facing through manual processes. Clearly, innovations like predictive maintenance systems are not possible without data so capturing and utilising that information correctly is fundamental.

Unexpected maintenance problems can be a nuisance but also very costly. This can be exacerbated by a shortage of technicians, as seen in the industry today. Some figures we received from TRAX show that the average delay costs \$920,08 per flight with cost drivers of fuel, crew, maintenance, and so on. Having a predictive maintenance system that is dynamic, that can incorporate machine learning algorithms, uses statistical analytics, and intelligence-driven planning can help overcome many of these unexpected activities.

While keeping it digital, in this issue, we also caught up with GE Digital Aviation Software - they had good showing at Farnborough signing deals with Qantas and BBAM. They spoke to us about the importance of digital solutions as an enabler for cost efficiencies particularly as airlines re-build their operations post-pandemic.

Happy reading!

Keith Mwanalushi
EDITOR

Airlines will increasingly turn towards digital platforms to improve several functions.

Photo: HAECO



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New digital platforms drive demand for simplified maintenance records



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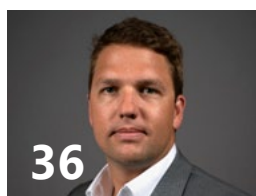
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AJW Group expands power-by-the-hour contract with Air Transat

AJW Group, an independent aircraft component parts, repair and supply chain solutions provider, has signed a new power-by-the-hour (PBH) support contract with Canadian airline, Air Transat. The support contract will see the business use its industry leading expertise to manage the complete supply, repair, overhaul and warranty of major components for the operator's expanding fleet of Airbus A321neo and A321ceo aircraft at Air Transat's primary base of operations in Montreal, Quebec as well as from bases in Toronto and Vancouver. AJW Group has supported Air Transat with PBH service contracts for nearly 10 years, originally for its Airbus A330 fleet.



AJW Group has signed a new PBH support contract with Canadian airline, Air Transat

Photo: AirTeamImages

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StandardAero's Brazil Regional Turbine Center receives Argentina and Chile authorisations to perform OEM-approved aircraft engine maintenance and repairs

StandardAero's Regional Turbine Center (RTC), located in Belo Horizonte, Brazil, has received new authorisations from both Argentinean and Chilean aviation authorities to perform OEM-approved aircraft engine maintenance, repair and overhaul services for operators of aircraft registered in those two countries. As a result of these new authorisations, Argentinean and Chilean-registered aircraft can now be supported by StandardAero's Brazil RTC in several different ways. While operating their aircraft in Brazil, operators can receive services at the Belo Horizonte facility. In addition, StandardAero's Brazil Mobile Services Team (MST) can travel to operator locations in Argentina and Chile and perform services for their aircraft. Finally, Argentina and Chile operators can also ship their engines and APUs to Brazil for service at StandardAero's facility.

C&L Aviation Group receives EASA and UK STC certification for Embraer 135/145 Universal FMS upgrade

C&L Aviation Services, a C&L Aviation Group company, has received both UK and EASA STC certification for its upgrade of the Universal UNS-1K (SCN600 or SCN800) series flight management system (FMS) to the UNS-1LW (SCN1000-series) WAAS-enabled unit for the Embraer 135/145 aircraft. "We're pleased to follow up our FAA STC certification earlier this year with EASA and UK approval. Having a viable option for European operators to upgrade their FMS systems is critical as these systems continue to evolve," said Charlie Carroll, Avionics Sales Manager for C&L Aviation Services. "Having our own in-house engineering group allows us to dedicate resources to STC projects like this one that meets customer's needs." C&L has been modifying and upgrading the interiors and systems on ERJs for several years and specialises in converting these aircraft into business-class and luxury jets. C&L also provides on-site engineering, avionics support, aircraft exterior painting and heavy maintenance services.

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AMETEK MRO Singapore expands services for sensors and fluid management systems

AMETEK Singapore, a brand of AMETEK MRO, has increased its scope of MRO support for Asia-PAC airlines and operators, independent engine MROs and repair management companies with streamlined local representation for AMETEK sensors and fluid management systems (SFMS). A leader in providing highly specialised sensors and solutions for aerospace, defence and space, AMETEK SFMS' approach to repair and overhaul services revolves around a commitment to exceptional quality, and flexible warranty coverage. David Corish, Divisional Vice President and General Manager of AMETEK Singapore PTE emphasises the company's core strategy of supporting legacy platforms with best-in-class MRO solutions for customers. "Our wider customer base throughout the APAC region can now access customer service support for replacement and repair of sensors in the same or similar time zone. They can benefit from full OEM repair warranty assurance and take advantage of business terms aligned to AMETEK MRO Singapore. There is no need to deal with additional teams from other global locations because we comprehensively manage the logistics for the entire component sales and repair process."



Photo: AMETEK MRO Singapore increases its scope of MRO support for Asia-PAC airlines

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HEICO Corp. acquires leading aircraft antenna company Sensor Systems

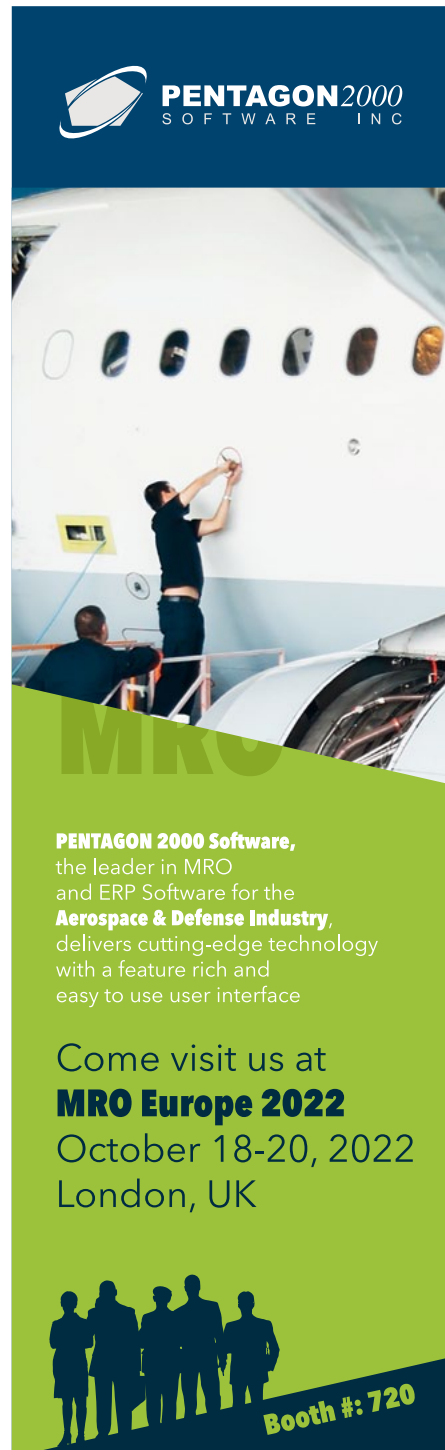
HEICO Corporation has released that its Electronic Technologies Group has acquired all of the stock of Sensor Systems, Inc. (Sensor) for a combination of cash and approximately 575,000 HEICO Class A Common Shares. Further financial details were not disclosed. HEICO stated that it expects the acquisition to be accretive to its earnings in the year following the acquisition. Chatsworth, CA-based Sensor is one of the world's leading designers and manufacturers of airborne antennae for commercial and military applications. Recognised as an international standard for many of its antennae, Sensor's products include, among others, Aircraft Direction Finding (DF), Altimeter, Glideslope, Global Positioning System (GPS), L-Band, Marker Beacon, satellite communications, Total Collision Avoidance System (TCAS), Very High-Frequency (VHF) and Very-High-Frequency Omni-directional Range (VOR) antennae. Sensor's antennae are found on nearly all large commercial transport aircraft built in the last 50 years, along with numerous business and military aircraft.

Sumitomo Corporation acquires Werner Aero

Werner Aero has released that Sumitomo Corporation, through Sumitomo Corporation of Americas, has acquired 51% of the shares of Werner Aero, LLC headquartered in New Jersey, U.S.A. While demand in commercial aviation has taken a hit due to COVID-19, IATA estimates that revenue passenger-kilometres will recover to pre-pandemic levels in 2023 and growth will continue, driven by short- and medium-haul routes. "This is an exciting opportunity for Werner Aero. This acquisition will position us to expand the business and grow our offerings to our customers. We are seeing that demand for spare parts and services is growing rapidly. Our joined forces will benefit our customers by bringing more innovative and expanded solutions to them. This transaction will give us greater capacity for full-service aircraft management and support, and just-in-time inventory" said Mike Cazaz, CEO of Werner Aero. Sumitomo Corporation is a Japanese publicly traded diversified conglomerate that operates in various business sectors in Japan, the Americas, Europe, Asia and elsewhere throughout the world. Sumitomo has been ranked for the past 27 years as one of the global companies leading the world's development in the Fortune Global 500, an annual list compiled and published by U.S. Fortune magazine.

Willis Lease Finance reports second-quarter pre-tax income of US\$11.0 million

Willis Lease Finance has reported second-quarter total revenues of US\$78.1 million. For the three months ended June 30, 2022, aggregate lease rent and maintenance reserve revenues were US\$60.9 million and spare parts and equipment sales were US\$6.8 million. The company reported increased total revenues in the second quarter when compared to the prior-year period, primarily due to an increase in lease rent revenue and short-term maintenance revenue. The company generated US\$11.0 million of pre-tax income in the second quarter of 2022 compared to \$-(1.9) million in the comparable quarter of 2021. The book value of lease assets the company owns directly or through its joint ventures, inclusive of its notes receivable and investment in sales-type leases, was US\$2,352.4 million at June 30, 2022. As of June 30, 2022, the company also managed 351 engines, aircraft and related equipment on behalf of other parties. (£1.00 = US\$1.21 at time of publication).



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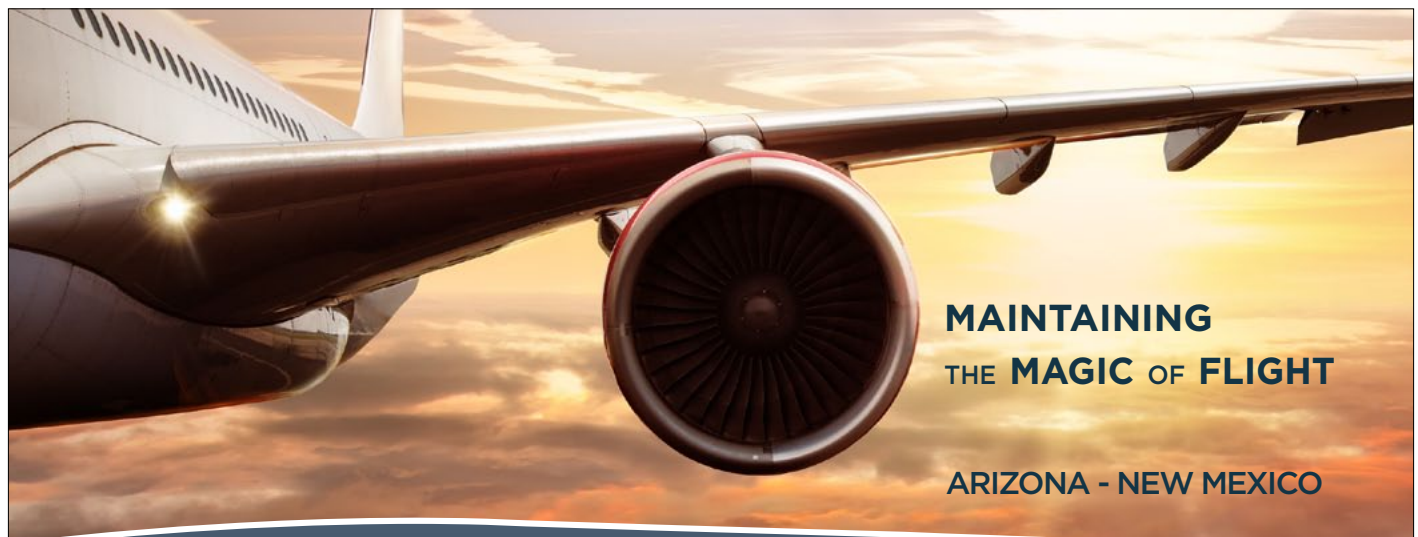
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CargoAir places order for fourth AEI B737-800SF freighter conversion

Aeronautical Engineers (AEI) has released that Bulgaria-based CargoAir has ordered its fourth AEI B737-800SF freighter conversion. The aircraft, (MSN 30883) is slated to commence modification at the end of October 2022. All conversion-related touch labour will be performed by the authorised AEI conversion centre, Commercial Jet in Miami, Florida. "The AEI B737-800SFs are part of our overall fleet revitalisation programme and will be used to incrementally replace our existing fleet of B737-300SF/-400SF freighters," remarked CargoAir Purchase and Fleet Acquisitions Director, Angel Petrov. "AEI has the best B737-800SF conversion on the market with features and reliability that support real-life conditions. Additionally, AEI provides flexible slots which substantially assists our overall fleet planning requirements." CargoAir is an important, long-term customer for AEI. Upon completion of this order, CargoAir will operate a total of 15 AEI freighters, including a mix of B737-300SF, B737-400SF, and B737-800SF freighters.

Aspire MRO launches new wide-body conversion and maintenance services programme

Aspire MRO has announced the launch of its wide-body MRO and passenger-to-freighter (P2F) conversion services. Founded by experienced MRO executives, Aspire will operate six bays available for heavy wide-body maintenance and B777 passenger-to-freighter conversions at the former American Airlines maintenance facility located at Fort Worth Alliance Airport in Fort Worth, Texas. The company is backed by investment funds managed by affiliates of Fortress Investment Group. With a deeply experienced leadership team, a dedicated 840,000 ft² state-of-the-art facility and an exceptionally skilled labour force in place, Aspire is positioned to become a world-class leading heavy maintenance and P2F provider for both domestic and international operators. The Company has secured a substantial long-term multi-year contract to perform P2F conversions and MRO-related work for Mammoth Freighters and maintains ample additional capacity to support operators around the globe seeking to meet the ever-increasing demand for next-generation P2F conversions. Aspire expects the Alliance Airport facility to become a long-term hub for aircraft maintenance, bringing significant job creation to the Fort Worth area.



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Digital solutions will unlock more possibilities for aircraft operators

GE Digital and BBAM Signing Ceremony at Farnborough.
All photos: GE Digital Aviation Software

Keith Mwanalushi recently talked to Joel Klooster, Vice President of Product and Strategy at GE Digital Aviation Software to see how the company is helping operators around the world to unlock value through digital solutions.

It was a busy week for the GE Digital Aviation Software team at the Farnborough Air Show last month announcing five announcements over two days and participated in two signing ceremonies.

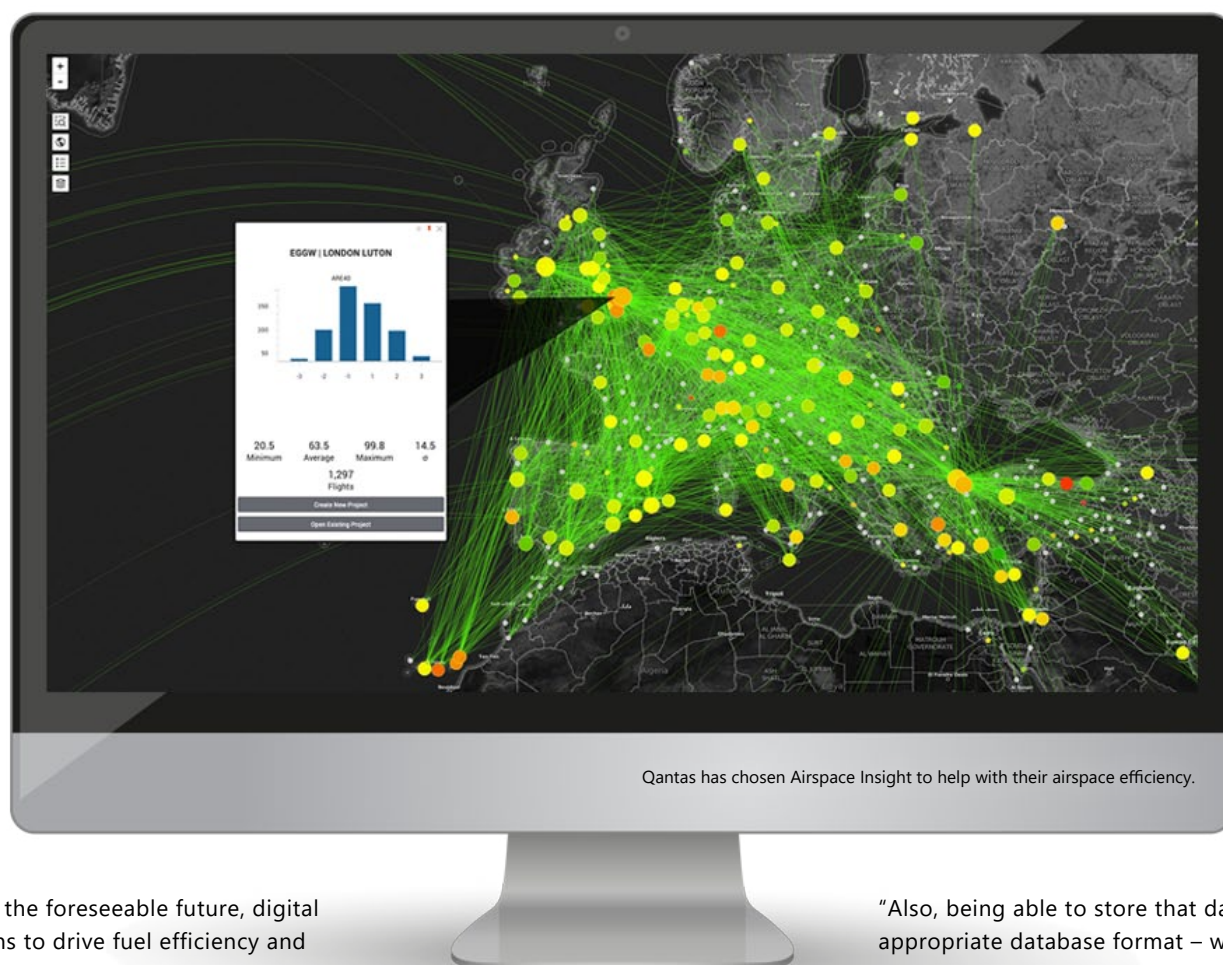
There were three customer announcements with Qantas choosing *Airspace Insight* to help with their airspace efficiency and BBAM Aircraft Leasing and Abelo choosing *Asset Transfer System*. There was one product announcement; *Animations* have been added to *FlightPulse* to aid in training and safety; and an announcement about the signing of a MOU with Microsoft and Teradata for the development of a sustainability solution.

Aircraft operators are increasingly seeking solutions to solve their toughest challenges by putting industrial data



Joel Klooster, Vice President of Product and Strategy at GE Digital Aviation Software

to work. As airlines re-build their network operations post-pandemic digital solutions that can generate cost efficiencies will prove vital. It is no secret that airlines are struggling with staffing across the board as flight demand surges post-pandemic. "This will not go away anytime soon, especially with pilots and aviation maintenance technicians," comments Joel Klooster, Vice President of Product and Strategy at GE Digital Aviation software. He says this is creating demand for use of data and digital solutions to support a very dynamic operation, using data and analytics to provide more visibility into the operation and understand the impact of various actions on the overall operation. "Another area we are seeing increased focus on is sustainability. With the rising cost of fuel and limited availability of



SAF for the foreseeable future, digital solutions to drive fuel efficiency and sustainability are a key enabler to the near-term support of the industry's sustainability goals."

According to GE Digital the only way to get the kind of acceleration the industry needs to hit sustainability and efficiency goals is to put data to work. Airspace Insight – the solution chosen by Qantas, for instance is designed to help identify and quantify airspace inefficiencies to reduce overall flight time, fuel burn, and carbon emissions. It is estimated that a typical flight emits 900 to 1,000 kg of excess carbon per flight due to inefficient airspace design and air traffic control practices. The solution is designed to better enable Qantas to understand what is happening in their airspace from a safety and efficiency perspective with more detail than they had access to before.

Looking closer at the MRO side of things there are clear opportunities with prognostic technologies. Predictive maintenance uses advanced data analytics to process the aggregate data

from an aircraft or fleet to predict when components will fail based on usage and data.

"Predictive maintenance is not possible without data," says Klooster. That said, he states that the data needs context and domain understanding to be truly valuable for predictive maintenance. "There is a vast amount of untapped data related to the maintenance and operation of the aircraft that can drive better predictability of future unplanned maintenance needs but also support root cause analysis to determine the right corrective actions more quickly."

Klooster says the challenge is how that data is stored, as much of it is not currently in a digital format – for example configuration history and maintenance logs are often still paper based. Digitising that information, extracting and indexing the relevant fields, and combining that with historical time-series data from the asset itself is the first step.

"Also, being able to store that data in the appropriate database format – whether structured or unstructured – and use the right combination of analytical tools on that data is key. But if done correctly, the potential for efficiency improvements and increased asset availability is amazing."

Eliminating waste and automating maintenance requests is another key area that MROs can seek opportunities, from improved inspection technologies and robotics to better use of data and analytics for decision support. "The key is to just get started and begin driving improvements. As mentioned before, capturing and storing the appropriate data in a digital format and then use of modern data analytics capabilities to better understand historical actions, causes of failures, and predict the best fix is an easy way to get started."

With that, Klooster feels improved workscope planning and more streamlined data exchange and digital collaboration between the different stakeholders – OEMs, lessors, operators and MROs – can also significantly reduce waste and improve efficiency.



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says CEO Swiss AviationSoftware Ltd

DRF Luftrettung goes for AMOS, the world-class M&E software solution.

DRF Luftrettung, one of Europe's major air rescue companies providing rapid assistance to emergency patients, joins the fast-growing AMOS helicopter user-group. AMOS complies with the special requirements of helicopter maintenance by providing dedicated functions only relevant for helicopters, such as vibration monitoring, engineering requirements, dynamic counter options to optimise maintenance control and performance, mission logic or in-depth effectivity rule logic to track fleet uniformity or customer preference.



Strong policies are required to significantly drive up **SAF** adoption

Joshua Ng, Director at Alton Aviation Consultancy provides his thoughts on the progress and challenges for achieving fossil free aviation through sustainable fuels.

From an emissions perspective, burning of fossil fuel is a significant contributor to aviation's carbon emissions. While aircraft manufacturers are spending their research dollars in developing new aircraft concepts that use electricity or hydrogen as the primary fuel source, these technologies will likely only be ready in the second half of this decade, and more likely in the next decade. Sustainable Aviation Fuels (SAF) is a drop-in fuel that is compatible with the ground infrastructure and aircraft of today and presents an immediate opportunity for reducing carbon emissions.

SAF blending mandates have been adopted by several countries. For example, Norway introduced a blending mandate of 0.5% in 2020, which will increase to 30% in 2030. Many airlines, irrespective of government policy, also have SAF offtake agreements with SAF producers as well to

support their own decarbonisation efforts.

From a demand and supply perspective, we are expecting that the market for SAF will be supply-constrained for the next five to ten years. While SAF demand exists, there are not enough plants producing SAF to meet that demand. Investments are required to develop new SAF pathways and bring down SAF production costs, as well as to build new or convert existing plants to produce SAF.

The automotive sector is ahead of the aviation sector in its decarbonisation efforts. The use of biofuels is prevalent in developed countries such as Europe and North America, where there are biofuel blending mandates for road transportation fuel. Aviation is simply tapping on a similar framework to decarbonise – at much greater scale, scope and tempo than before.



Joshua Ng, Director at Alton Aviation Consultancy

Based on the chemistry, biofuel plants produce a product slate that can contain a range of products including biodiesel, naphtha, SAF and other petrochemicals. This means that existing biofuel plants that currently produce renewable fuels for road transportation can also produce SAF. Economic and policy decisions will guide how biofuel plants optimise their product slate and create SAF supply in the near-term.

A sustainable feedstock supply is a must to achieve decarbonisation goals. First and foremost, feedstocks should not

directly compete for land that can be used for feed and food production. Secondly, proper accounting of carbon reduction estimates is needed to ensure that there is no carbon leakage from one part of the value chain to another.

Using the Hydro processed Esters and Fatty Acids (HEFA) pathway, common feedstocks are waste and residue lipids such as cooking oils and animal fats. There will be an upper bound in the amount of feedstock available from human consumption.

Using the HEFA and the more novel Alcohol-to-jet (ATJ) and Gasification/FT (G-FT) pathways, common feedstocks are agricultural and forestry residues, as well as oil-bearing plants grown on marginal and degraded lands. There are also similar upper bounds to the amount of feedstock that can be cultivated on a given land mass.

To significantly drive up SAF adoption, the power-to-liquids (PTL) pathway is critical. PTL uses direct air capture of carbon in the atmosphere, stores it, and converts it into SAF. There is high potential for supply through the PTL pathway, given that the technology works with carbon - an almost limitless resource -

that is present in the atmosphere. While PTL technology is not as well-developed as the other pathways, there is huge potential for commercialisation in the late 2020s and early 2030s.

To get started, strong policy design is required to support the development of SAF as an anchor feedstock for aviation.

Governments must send clear signals regarding SAF blending mandates. Blending mandates are a proxy for demand signals and providing a demand planning horizon helps the biofuel industry plan for the capital investment required to support those mandates.

Given that SAF is more expensive than fossil fuels even in today's high oil price environment, governments need to economically incentivise industry players to drive SAF adoption. Incentives could come in the form of research grants to develop more economical pathways to produce SAF, or from co-funding of SAF investment projects that help defray the initial investment or the operating costs of those plants.

Incentives could also be made available to the fuel consumers - airlines. SAF subsidies can be offered to help defray the more costly SAF and create

a level playing field for all operators. Alternatively, additional fossil fuel taxes or carbon trading, could, for example, be used as policy mechanisms.

Any taxes on carbon should ideally be put back into the sector to support further decarbonisation initiatives. A global SAF framework should be adopted to avoid carbon leakage from one country or region to another. This avoids potentially distorting the competition, with airlines or routes not covered by SAF mandates having an advantage over those that are covered by SAF mandates.

A "book and claim" system can support such a mandate where there is a desire for SAF usage but limited by localised supply chain constraints where SAF may not be available at particular airports.

There is also a globally recognised carbon offsetting scheme, such as CORSIA, that combined with a cap-and-trade system, such as the proposed EU-ETS, that penalises the usage of carbon-emitting fuels, to level the playing field for airlines.



Several airlines have supported the use of SAF.
Photo: Lufthansa Cargo

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Maximising effectiveness in lease return operations

Some MROs have seen an uptick in requests for hangar slots.
Photo: Cerdeav

Keith Mwanalushi gathers insights into lease return procedures and processes to analyse the post-pandemic trends and best practice for aircraft transitions.

The aircraft leasing industry has had a tough time over the last two years while navigating the challenges of the pandemic – dealing with a significant fleet in storage while also trying to find innovative solutions for aircraft operators during their financial and balance sheet recovery.

Valentin Ivanov, Vice President Technical at Magnetic Leasing indicates that the pandemic induced fleet grounding forced lessors and airlines to often make quick and spontaneous decisions, which in many instances did not allow industry participants (lessees and lessors) to properly evaluate all the possible implications and additional technical requirements due to prolonged parking and storage.

The pandemic period caused a wave of technical personnel to leave the industry, affecting airlines and Part

145 MRO organisations, and in certain instances lessors too – “all this resulted in an expected decrease of precision and



Valentin Ivanov, VP Technical, Magnetic Leasing

efficiency with regards to lease returns, which is a complex multiple-stage process requiring adequate and realistic planning,” says Ivanov.

Another major contributing factor to delays in lease returns is the disruption in the supply chain, problems with the distribution of rotatable parts, availability of consumable materials and the drastic over-complication of logistical processes, notes Ivanov. “When all three are combined they impact the required parts and materials supply timeline immensely, reduce the delivery timeline estimation reliability and drive supply costs much higher.”

At Magnetic, they are optimistic that lesson learned will lead the industry to become more efficient and leaner in lease return management and will further integrate improvements into routine processes and planning.



Additional repairs may be needed that could not have been foreseen during the original work scope creation.

Photo: Fokker Techniek

On the engine leasing side, lessees are returning engines per contractual requirements with on-wing testing or an ECM return - operator trend data reviewed by engine OEM's stating that all engine parameters are acceptable - which is a time and cost savings for lessees, reckons Anthony Spaulding, Executive Vice President at Magellan. "The issue that lessors face is receiving the trend data promptly from the lessee to approve an on-wing test well before the test and removal date to question any parameter shifts. This can be explained by

the staffing issues that airlines are facing post-pandemic, which is slowing down the records and return documents flow from the airlines."

Spaulding explains that planning for effective lease returns begins with a solid lease document at the start of the lease that clearly outlines what is required at lease return, and each party's responsibilities to have a smooth transaction. He says knowing what is needed upfront and providing the prior lease return packages on the leased asset to the new operator lets them know



Anthony Spaulding, Executive Vice President at Magellan

“Being able to review back-to-birth trace and other time-controlled items via clear, ATA chaptered electronic files is the future state we all need to work collectively to achieve versus digging through multiple boxes.”

Anthony Spaulding, Magellan



David Ellis – Head of ATG, LIFT

that the same level of documentation is required at lease return. “We usually reach out to a lessee 30 to 45 days prior to contract expiration, if they have not exercised any lease extensions, to go over the return process and documentation requirements to answer questions and provide any support in terms of lease return technical support,” says Spaulding.

In the current environment, both airlines and lessors are dealing with staff shortages and a relatively high activity volume. It is no surprise that records review, physical inspections, provisioning of parts to address findings or meet return conditions, and minor maintenance are all taking much longer to process. Additionally, David Ellis – Head of ATG, LIFT (GA Telesis) points to OEM support teams, third-party maintenance providers, or aviation authorities, all of whom are experiencing their own staff shortages and heavy workload constraints.

“The situation is exacerbated on the airline side in that they have not been able to fully recover some of the experienced staff lost to pandemic-related furloughs and layoffs. On the lessor side, there have been more workouts, early lease terminations, and reposessions that absorb exponentially more resources than what is required of the technical staff during more stable times. These forces have pulled each party [lessor-lessee] further apart in meeting efficient lease

“Frequent status calls are the best way to communicate the ever-changing dynamics, even in light of schedule issues that come with time zone misalignment. Many of the nuances relating to lease returns can be easily lost in translation when relying solely on written communication.”

David Ellis, LIFT

return timelines,” states Ellis.

Thankfully, Ellis indicates with most international border restrictions lifted, having staff participate on-site during the return process had significantly improved from the challenges faced when quarantine restrictions were in place.

In the planning stage, Ellis feels the main starting point is communicating the financial expectations to the customer-facing project manager, followed by creating a roadmap, then troubleshooting deviations that arise during the return process. He says this requires input from the various involved teams, namely commercial, technical, accounting, and records. “At GA Telesis, we rely heavily on evaluating financial impacts related to findings during the return process, then making conscientious decisions to maintain optimal outcomes. In addition, we highly value the relationship with our lessees, and balancing the relationship dynamics while maintaining the lease return obligations which requires an experienced and balanced approach.”

From an internal perspective, keeping the transaction budget updated as new developments arise is especially important, Ellis highlights. “Frequent status calls are the best way to communicate the ever-changing dynamics, even in light of schedule issues that come with time zone misalignment. Many of the nuances relating to lease returns can be easily lost in translation when relying solely on written communication,” he says.

At Fokker Services and Fokker Techniek, recently, they have seen an uptick in requests for hangar slots. At the Fokker Services facility in Singapore, there is

space for up to five ATR or Fokker aircraft at a time for heavy checks or minor servicing. “Over the last six months we have been fully booked,” comments Leon Kouters, Vice President Sales and Marketing at Fokker Services and Fokker Techniek. “If this trend continues, for us this is a sign that we are in the beginning phases of recovery for these types of aircraft - although there are more widebody aircraft still in storage.

“Over the past few months, we have seen some early lease returns due to repossession amongst other reasons. However, the market is still adjusting, and lessors are generally being flexible to allow airlines to get back to more stable operations,” Kouters indicates.

Leasing work has always been more unpredictable in terms of workflow, Kouters continues. “When an aircraft is inducted for a check, additional repairs may be needed that could not have been foreseen during the original work scope creation.”

Fokker Services Asia offers many different services for lease returns including heavy checks, modifications, engine changes, cabin refurbishments, painting, and structure component repairs.

In addition, as lessors do not own spares or components, they will likely look for one-stop shops capable of handling the supply chain aspect. “Although there are global supply chain challenges, our team are dedicated to search and manage all required parts during a lease return. Throughout the entire process, we stay in close contact with lessors to effectively manage slot availability and ensure everyone is aligned on timelines and progress.”



Fokker Services Asia, offers many different services for lease returns.
Photo: Fokker Services



Leon Kouters, Sales & Marketing VP at Fokker Services Group

As Kouters cautions, if lessees face unmet return conditions, or if the lessor has challenges with a lease that is terminated early, this could result in extra costs and delays. He says at Fokker Techniek in the Netherlands, the team find the right solutions by leveraging in-house capabilities; for instance, addressing any availability issues and to guarantee that work continues. Also, the team manufactures parts on-site on a case-by-case basis with authorisation from the OEM.

At the Kellstrom Aerospace Group, through its Kellstrom Technical Services Group, they deliver a suite of solutions for both the lessor and the lessee to ease

the transition process, minimise conflicts and resolve open items, says Kellstrom Aerospace Technical Services Group's [KTSG]— John McKirdy, SVP, Technical Services.

"Working with our customers, we engage as early in the process as possible to assist in selecting the right maintainer and the right maintenance strategy to fulfil the requirements of the lease contracts and minimise asset downtime," says McKirdy.

Through the technical advisory company, The Aircraft Group, Kellstrom works with operators throughout the leasing of the asset managing and updating technical records, overseeing midlife lease inspections, and assisting in heavy maintenance management. "During the asset transfer process, we can assist in facilitating the asset transfer, arranging ferry flights, and managing maintenance bridging activities from one operator to the next," McKirdy adds.

At Kellstrom's engine MRO division, Vortex Aviation, the three facilities in Fort Lauderdale, Shannon, and Dublin provide end of lease and lease return workscope management including surgical strike hospital shop maintenance actions, borescopes, top cases, module swaps,

boroblending, C-Checks, MPD tasks, preservation and storage. Additionally, the Kellstrom Technical Engine Management organisation assists lessors and small to mid-size airlines with engine fleet management strategies throughout the duration of the operating lease, managing engine on-wing performance and that scheduled engine lease return requirements are met.

Using technology to make lease return inspections more effective

With issues ranging from data collection to damage reports on site, technology is increasingly playing a greater role in dealing with lease returns.

McKirdy agrees that modern technologies are facilitating the ability for maintainers to collect and analyse inspection data to determine more accurately, the serviceability of the findings thus reducing time and increasing effectiveness – "Further, recent technologies in supporting the corrective maintenance actions of these findings enable MROs to cost-effectively address the serviceability requirements as well as minimise downtime," he notes. At Kellstrom's technical division they are focusing not only on the emerging technologies but also on the human side of those decisions.

McKirdy adds: "The hiring of experienced personnel and investing in the capabilities of key technical experts who must make qualified decisions about the modern data sets that are being observed contributes greatly to our customer's success and our commitment to world-leading technical advisory services."

Speaking on the pandemic period and post-pandemic optimisation, the Magnetic technical team have seen the implementation and use of remote aircraft inspection principles incorporating the latest technological advances, with a concept of simultaneous work by on-site technical engineers and remote office engineers using a live ultra-high quality video streaming capability. "Such an approach allows lessors to

minimise inspection costs during lease returns by minimising travel costs and allows better attention to details, as ultra-high-quality recorded video files can be later reviewed and questioned, which requires additional attention and checks even when evaluated remotely," says Ivanov from Magnetic Leasing.

However, Ivanov points to a downside saying the different parties involved in the lease return process often use different solutions (e.g., online spreadsheet platform solutions, online file sharing platforms), which although are conceptually similar, they still have multiple minor differences and specifics. "The use of different solutions during

the same project creates additional time wasted on access and navigation within alternate technological solutions used by the other side," he notes.

At Fokker Techniek, they are focusing on digitising aircraft data – "Any damages are registered with a tablet and transferred into our system with a data link for our customers to view," Kouters comments. He also amplifies the challenges that come with the variety of databases in use. "Right now, our industry is working with many different systems, templates, and document service providers. It will take time for a large scale uniformization of data transfer to take place. Blockchain applications may be part of the solution if

accepted by key players and of course by aviation authorities."

Spaulding from Magellan concludes saying there is still a long way to go in terms of full acceptance from lessors, lessees, and the aftermarket in providing and accepting digitised records. "Being able to review back-to-birth trace and other time-controlled items via clear, ATA chaptered electronic files is the future state we all need to work collectively to achieve versus digging through multiple boxes."

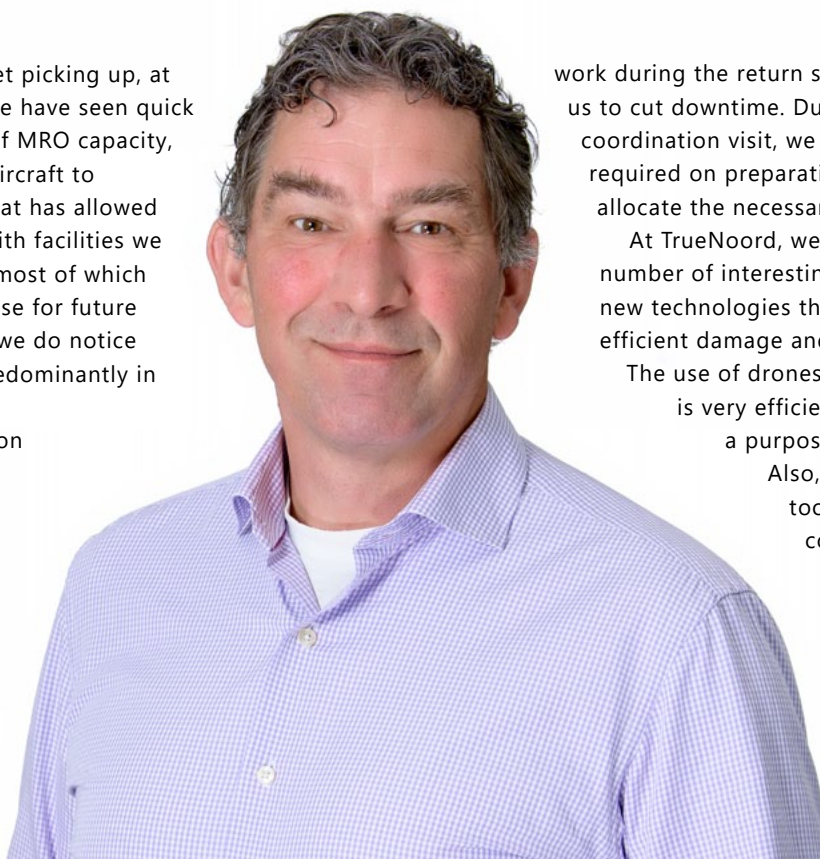
Spaulding stresses that this advancement will enable quicker aircraft and engine returns to transition to the next operator or asset sale.

From a lessor's perspective....

By **Richard Jacobs**, Chief Commercial Officer at TrueNoord

With the market picking up, at TrueNoord we have seen quick congestion of MRO capacity, requiring us to divert aircraft to alternative facilities. That has allowed us to get acquainted with facilities we have not used before, most of which we are planning to utilise for future work. Other than that, we do notice supply chain issues, predominantly in component repairs.

As return coordination with the lessee is planned, we are considering the most likely options for placing the aircraft on subsequent lease and estimate the mods required for this. Oftentimes, the previous lessee cooperates in planning this



work during the return shop visit, allowing us to cut downtime. During a return coordination visit, we also assess the work required on preparation of records and allocate the necessary capacity.

At TrueNoord, we have found a number of interesting applications for new technologies that allow for more efficient damage and repair mapping.

The use of drones where permitted is very efficient and also serves a purpose in remarketing.

Also, the use of VR tools is something we consider an interesting development, although we have not applied it quite yet. We hope to investigate this further in the future.

Richard Jacobs, Chief Commercial Officer at TrueNoord

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New **digital** platforms drive demand for simplified maintenance records



Airlines need more cost effective and robust solutions for fleet management and maintenance.
Photo: HAECO

Aircraft maintenance documentation has been slow to digitise but MROs that are increasingly going digital are finding that innovation is creating efficiencies, however, a full transition is still a way off, as **Keith Mwanalushi** finds.

Several MROs have reported that moving to digital processes is making life easier for reviewing records. It certainly makes sense to go digital in today's environment but clearly the MRO sector has been slow to digitise, especially if we look at the sheer size and complexity of OEM manuals, and that is just the start.

During the height of the pandemic in 2020, airlines reportedly reduced their IT budget spending by about 60% from 2019. However, Jason Bennick, President, Digital Innovation Group at GA Telesis feels this had the collateral effect of increasing demand for MRO platform digitalisation, such as engine and landing gear maintenance planning and aircraft fleet management. "In addition, inventory accuracy, supply chain prediction, and digital access to service and repair documentation have become hot targets



Jason Bennick, President,
Digital Innovation Group – GA Telesis

for digitalisation and latency resolution. If anything, these reduced allocations are making MROs more competitive and forcing them to lean on greater efficiencies to stay relevant, solve profitability, and increase value," he says.

At GA Telesis, they see a marked increase in demand for quicker delivery turnarounds and a higher volume of repair intake. "As a result, we invest a lot of time and effort to innovate our MRO processes to digitalise as much as possible, from the shop to logistics and delivery."

Over the last year, GA Telesis has talked with companies about digital solutions to support paperless processes, but Bennick reckons this transformation will take time. "Because of legacy systems and the decades of massive paper documentation volume, it is likely the market is still years from a complete transition. Still Bennick



MROs and software providers must leverage mobile innovations.
Photo: HAECO

suggests.

Following a challenging last few years several airlines cut discretionary spend, and Summit Chan, Group Director Corporate Development at HAECO observed that MROs also suffered tremendously as a record number of aircraft were grounded, depressing maintenance demands – “We have seen that the down cycle has negatively impacted MRO industry digitisation progress temporarily during the peak of the pandemic. At HAECO, we continue to invest heavily in enterprise applications and digital solutions to support our customers.”

Chan believes airlines need more cost effective and robust solutions for fleet management and maintenance planning. He stresses that these solutions require availability of quality data in digital form and that for several airlines, so much data is still kept un-structured on paper. “At HAECO, we have implemented electronic work cards and obtained the approval of

electronic signature of the e-work package with one of our strategic customers, paving the way for paperless processes. We have an aggressive plan to expand the scope to cover all our airline customers who are e-work card ready.”

Meanwhile, at aviation maintenance and engineering software specialists TRAX, they have not seen across-the-board budget slashing by clients for MRO IT spending. “It has, in fact, been very uneven with some of our customers pushing ahead with their digitalisation and paperless plans even during the height of the pandemic,” reports Nelson Capote, Director of Software Development, Integration Team at TRAX.

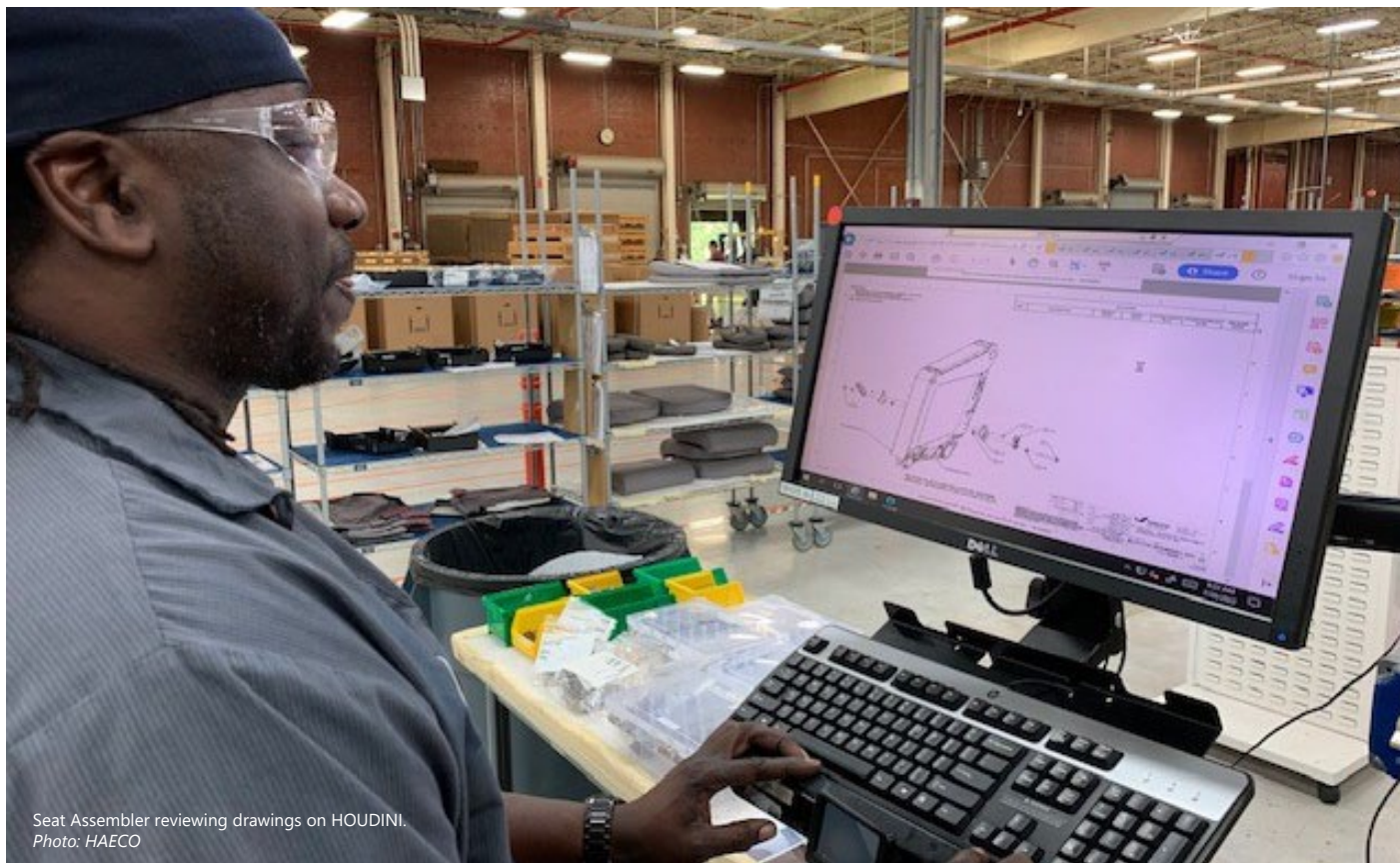
“Many of our airline and MRO customers displayed a strong willingness to implement technology spending projects that they believe would drive future earnings and efficiency. They viewed the slowdown and federal government



HAECO Group Director Corporate Development,
Summit Chan

subsidies as an opportunity to press forward on their technology roadmap and take advantage of underutilised labour capacity while many flights were grounded.”

Capote notes that appetite for technology improvements has only grown as the industry continues – albeit slowly -- to revive. “TRAX has found that we have to ramp up to meet this demand from our existing and new customers.”



Seat Assembler reviewing drawings on HOUDINI.
Photo: HAECO

OEMs and operators are increasingly sharing data and incorporating more sensors and Capote feels software developers would be remiss not to take advantage of these extraordinary amounts of aviation operator data to build a more dynamic and predictive software solution. "The difficulty is in developing constructive algorithms that can transform statistics into dynamic and beneficial predictions. TRAX plans to use these increased amounts of data by taking advantage of innovative technologies such as machine learning, predictive analytics, and virtual reality digital twins that extend our software's utility beyond historical reliability data and formulas

currently in use," he explains.

As an example of the benefits of new digital platforms to aid in fleet management, Capote explains that a customer collaborated with TRAX on the development of a portal to streamline records management for their aircraft fleet including maintenance and compliance data for leased planes. "Aircraft resale value can be diminished due to poor record keeping. Also, end-of-lease transfers and provision of required documentation can be time consuming."

The customer then reported that the TRAX eContent Control application led to 60 to 80% savings on the lease return process, representing U\$100,000 per

aircraft in savings. Capote noted that additional savings include a 60% reduction in off-site physical data storage, and an 80% reduction in human errors due to digital records and better and easier facilitated auditing.

“While there are many mobile maintenance apps available, most do not have off-line capability with automatic synchronisation when in Wi-Fi range. This was a deal breaker for TRAX customers and its why we developed our suite of apps to have this capability.”

Nelson Capote, TRAX



Nelson Capote, Director of Software Development,
Integration Team, TRAX



David Purfurst – Global Pre-Sales Director at Rusada

Embracing digital platforms

Airlines will increasingly turn towards digital platforms to improve functions such as fleet management and maintenance planning, including moving to paperless processes. "This has been a goal for many in the market for some time, but it seems to be a slower process in the aviation industry than other markets, comments David Purfurst – Global Pre-Sales Director at software developer Rusada. "We have the technologies in place to improve efficiencies where they are needed, but for airlines, adopting these and integrating them into their operations takes time and



Rolandas Dirgela, CDO of Magnetic Group

“

We have the technologies in place to improve efficiencies where they are needed, but for airlines, adopting these and integrating them into their operations takes time and patience, especially for the larger and more complex carriers.

David Purfurst, Rusada

”

patience, especially for the larger and more complex carriers,” he adds.

Over the last two years, Rusada developed and released three new mobile applications to improve many of the process-intensive activities that happen away from a desk. Purfurst explains that these include ENVISION Tasks for executing maintenance, ENVISION Stock for managing inventory, and ENVISION Flights for pilots and flight crew. "These all provide key information and technical documentation in a streamlined mobile format for working on-the-go.

"We have found mobile solutions are a good way to bridge the gap of adopting new technologies into the operation, and usually once the benefits are seen, more intensive changes follow," Purfurst states.

Rolandas Dirgela, CDO at Magnetic Group points out that digital platforms, paperless processes and most importantly seamless connection for data exchange between interested parties will be the winning combination in creating new revenue channels and improving current ones.

Dirgela says all the data necessary to accomplish the task or make the decision must be available at the fingertips and accessible in few clicks no matter where you are – "distributed enterprise is a must, and we are going there."

The MRO industry digitalisation progress is visible and Erkki Brakmann, CEO at SkySelect feels the process is unstoppable because airlines have realised that by using smart technologies, they can improve their bottom line.

At SkySelect, they have seen airlines increasing the need and interest in digitising MRO operations and Brakmann feels that airlines have realised that old processes will

not support their strategic goals. "The issue is that change management is often complex and slow, especially now that there is a lack of people." To overcome some of these challenges players like SkySelect are taking a unique approach by combining technology with expertise, so organisations can benefit from an eProcurement-as-a-Service (ePaaS).

"The advantage of this approach is that it overcomes the adoption problem, and an airline or MRO can transform their supply chain overnight instead of in the six to twelve months that it typically takes to implement new technology or platform." Secondly, he says they get instant access to AI, Big Data, and Cloud to enhance the visibility of their supply chain.

Brakmann further reminds that when implementing something new, there is always a switching cost that needs to be considered – "That is why we offer a risk-free, lightweight pilot to see the real



Erkki Brakmann, CEO at SkySelect.

MRO & DIGITALISATION

benefits of digitisation by using ePaaS. It takes a few hours to get set up, and the airline or MRO can run this in parallel to their existing process without having to replace anything immediately."

GA Telesis is moving in the direction of leveraging mobile application and currently has several initiatives in development to manage greater mobile access to data and improved transparency on operational movement and MRO analytics. "Without giving too much away, moving everything to a connected, secure, low-latency cloud-based operational framework of data and management mobility is critical for every MRO moving forward," says Jason Bennick.

Over at HAECO, they have launched mobility solutions, deploying more than 2,000 iPads to frontline engineers and mechanics to access the most up-to-date technical manuals and electronic work cards digitally, as well as to improve operational efficiency and quality of data captured. These mobility solutions include material and technical requests, non-routine task cards, and access to knowledge database for previous technical findings on the go, also enabling the customers to have more real-time information of the aircraft – "We are also trialling smart glasses to enable visual access to technical data," reveals Chan.

Also, the TRAX eMobility apps are an example of how mobile add-ons to an M&E software system makes the maintenance process more efficient and paperless. Capote explains that using the electronic technical logs apps, a pilot can raise a defect during a flight, which when connected through the onboard Wi-Fi system, streams down to the ground and presents a notification to a technician assigned at that flight's location. The mechanic can prepare in advance from wherever they are located to review the OEM manuals on their app, order replacement parts in advance, follow the aircraft status and arrival information, and so on.

"While there are many mobile maintenance apps available, most do not have off-line capability with automatic synchronisation when in Wi-Fi range," Capote indicates. "This was a deal breaker for TRAX customers and its why we developed our suite of apps to have this capability. Access to real-time information is critical to



New generation aircraft have the systems to make predictive maintenance a reality.

Photo: Airbus

decision making and on-time performance in the fast-paced aviation world."

Documentation and data integration via upload functions and APIs is already prevalent in the MRO industry, and Capote notes that TRAX products have the functionality to automate data ingestion and exchange. Its eMRO M&E ERP system has an integrated digital documentation management system TraxDoc module for OEM data, internal documents, AMM, IPC, etc. for multiple format types (SGML, XML, video, etc.). The eMobility apps include a digital documentation AeroDox app that integrates with the other mobile apps to allow users to search, view, and attach documents. He says the lack of standardisation for digital data exchange in the aviation industry is still a great challenge today. To overcome this, TRAX participates in groups such as the Air Transport Association of America (ATA) e-Business forum that is facilitating the development of industry standards such as Spec2500 and S1000D.

There is still a buzz around digital solutions for initiative-taking and predictive maintenance and Dirgela from Magnetic is convinced this will be the new normal. "All the industries around us are moving there and some already did it. We have it in the plans, unfortunately we cannot move alone as the data quantity and quality will be the key to make predictive maintenance happen at its best and for this we need close collaboration between airlines, OEMs, and MROs," he states.

New generation aircraft now have the systems in place to make predictive maintenance a reality. As such, Rusada for instance are developing the ENVISION software with this in mind, allowing users to integrate data from the OEM platforms and incorporate it into their maintenance planning and forecasting.

Through a central HAECO Data Platform, the company is collecting and pulling together all the maintenance data they have access to. Chan believes HAECO is in a unique position in that it has maintenance data for several airlines and aircraft types, enabling data analytics to play their role to support predictive maintenance. "We believe by pulling available data from the airline and MRO together, we will create additional insights on maintenance planning optimisation. We are actively working with some strategic customers on digital initiatives to explore these areas together," he says.

Due to ongoing digitisation efforts and rising technologies, the fleet maintenance, and parts purchasing process can be tangibly improved. This shift allows organisations to lower costs, keep operations lean, and their movements agile. The key is to build a digital ecosystem so all IT technology resources can function as a unit.

And as Brakmann from SkySelect sums up, "those that don't adapt and leverage digital technology will have a hard time competing in this highly competitive market to stay afloat."



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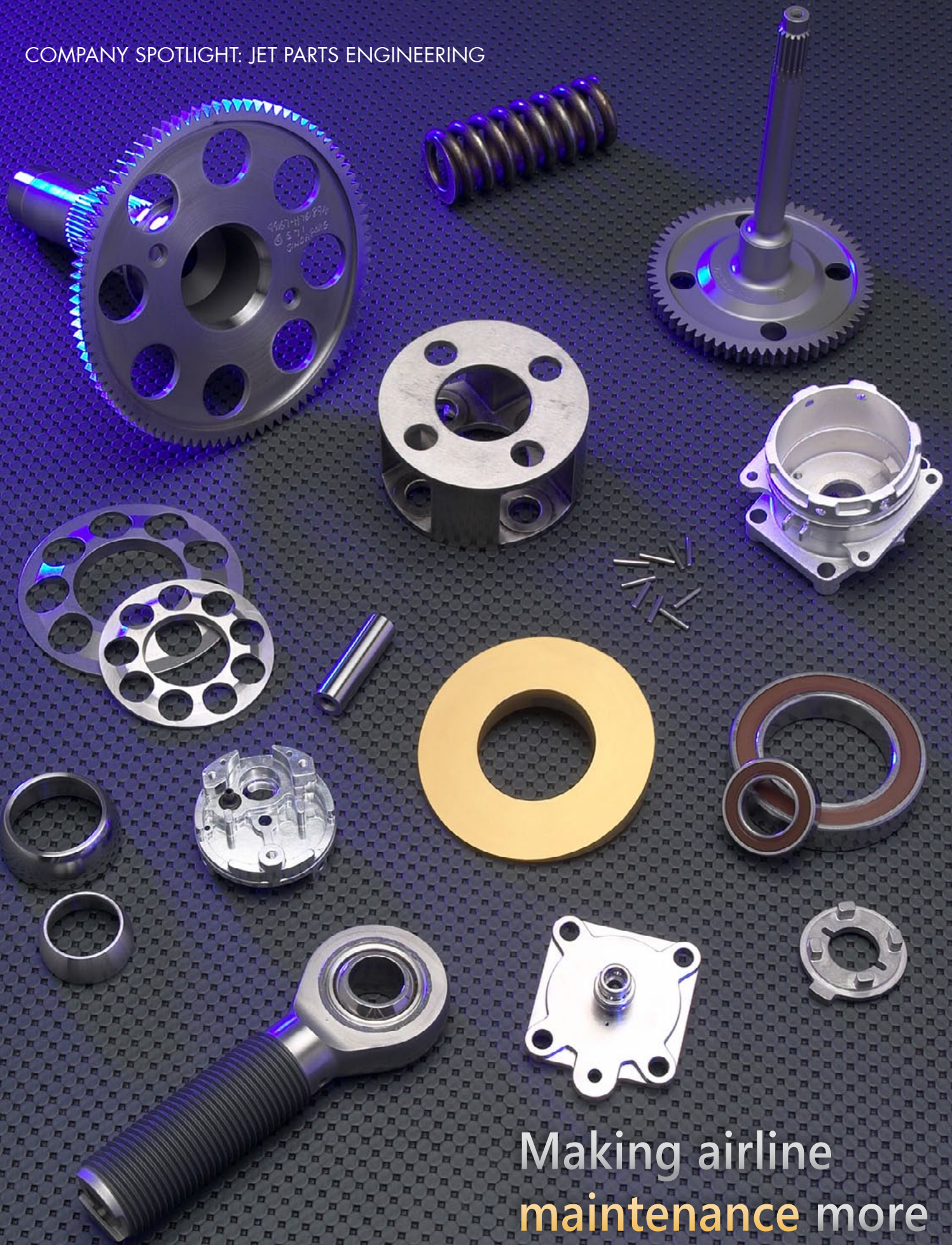
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COMPANY SPOTLIGHT: JET PARTS ENGINEERING



Making airline
maintenance more
affordable

Jet Parts Engineering has the ability to provide DER repairs to existing aircraft parts.
All photos: Jet Parts Engineering

By Daniel Finfer

Headquartered in Seattle, WA - a city known worldwide for its historic and present connection to the aviation industry, Jet Parts Engineering plays a key role when it comes to keeping aircraft flying. At the core, Jet Parts Engineering solves problems for their airline customers by providing their customers with aircraft parts that are more affordable than the Original Equipment Manufacturers (OEM), they can save airlines millions of dollars over the course of their aircraft's operational life. But a key element to the success of their business model, and the relationships they have fostered with their airline customers, is that they are able to provide part reliability that often surpasses the OEM. This customer relationship is further enhanced by Jet Parts Engineering's ability to provide DER repairs to existing aircraft parts - a function that offers even more cost savings by restoring the original functionality of the OEM parts instead of scrapping and replacing them.

Jet Parts Engineering boasts an extensive product line that includes

hundreds of parts from valves to torque motors, gears to bearings, seals to switches, temperature sensors to resistors, and light lenses to impellers, Jet Parts Engineering has a wide variety of capabilities made possible by its team of engineers. Experienced in 3D CAD, laboratory testing, metallurgy, and systems engineering, Jet Parts Engineering's engineers remain focused on developing internal capabilities that integrate the latest material, processes, and manufacturing technologies. Their parts span the full spectrum of ATA chapters (pneumatics, avionics, hydraulics, fuel, oil, electrical and more) of commercial aircraft ranging from regional prop jets up to higher capacity aircraft like the Boeing 777 and Airbus A380. They have parts that fit on components like pumps, generators, valves and actuators as well as directly on engines, thrust reversers, APU's, airframes, control surfaces and landing gear.

When an aircraft requires maintenance, an airline only has limited choices when it comes to replacement parts and repairs, which is the OEM. Because

of the limited number of options for airlines, demand can rapidly outpace supply, resulting in fluctuating and often excessive costs for replacement parts. With a surging global demand for travel, airlines are searching for improved part availability and cost-saving solutions now more than ever before. Jet Parts Engineering uses an approval granted by the FAA called Parts Manufacturer Approval (PMA) which allows Jet Parts Engineering to produce replacement parts for aircraft despite not being the original manufacturer. The designs for Jet Parts Engineering parts are created based on meticulous reverse-engineering, understanding of the associated aircraft systems, and interactions with operators. These designs are then approved by the FAA as part of the PMA process. The Jet Parts Engineering replacement parts are as good, if not better, than the OEM parts and often offer tighter tolerances, improved consistency, and sometimes even product improvements.

Jet Parts Engineering was founded in 1994 by Anu Goel. Anu received his



engineering degree from the University of Washington and began his career at Boeing, as an engineer. There, he was exposed to many different aircraft systems and their components. While he was at Boeing, Anu completed his Master's in business from Carnegie Mellon and then turned his attention to the aviation aftermarket. With an entrepreneurial mindset, he quickly identified a gap in what MROs and airlines needed to maintain their aircraft, versus the support and pricing they were receiving from the OEM part providers.

With the knowledge and connections Anu made at Boeing and within the industry, he began developing PMA parts for high demand pneumatic system components. As the company grew, they expanded beyond pneumatics and brought in additional expertise in other aircraft and engine systems. Along the way, Jet Parts Engineering integrated more engineering capabilities in-house by acquiring a metallurgical test facility based in Daphne, Alabama, along with an electromechanical PMA company out of Long Island, New York.

With a vision to "make aircraft maintenance more affordable," the

team at Jet Parts Engineering started seeing areas where airlines wanted cost effective solutions that did not necessarily make economic sense for PMA part development. In 2012, Anu and a colleague partnered to start PG Aerotech out of the existing Long Island facility specialising in DER repairs that were not standard OEM offerings. This allowed customers to save cost and provide an alternative to their maintenance practices.

In 2018, Anu recapitalised the business by bringing on private equity group Vance Street Capital which helped accelerate the company's growth by providing additional support and capital. Since then, Jet Parts Engineering has acquired other companies to broaden their offering – most recently Aero Parts Mart based in Fort Worth, Texas with PMAs centered around the regional aircraft market and AeroSpares, with PMA pressure sensors and switches that have been engineered to improve reliability.

Jet Parts Engineering is optimistic about what the future of their industry holds, but challenges remain. The aviation industry is heavily reliant on titanium, and geopolitical events in Ukraine and Russia are having a rapidly increasing effect on the metal's prices. Export to the US, which

has historically been the largest user of PMA parts, as well as export to Europe, is becoming more expensive. Jet Parts Engineering has been able to help ease the burden of these rising costs by offering a DER repair of some titanium parts that can achieve cost savings of over 70%. One example of this is their DER repair for the CFM56-7B engine fan blade spacers, used on Boeing 737NG aircraft.

Aircraft manufacturers have also been struggling to keep up with production demand and are thus extending the operational timelines of existing aircraft. This has been a boon for Jet Parts Engineering, as longer aircraft lifespans translate to an increased need for replacement parts and repairs. As supply chain woes continue, Jet Parts Engineering can provide a rapid turnaround time on their orders, often within three days. Minimising aircraft downtime is crucial for airlines to maintain their service levels and having parts on hand and in stock is critical.

Another unique service offered by Jet Parts Engineering is the ability for a customer to come in with a specific part that they would like developed and stocked. This can make Jet Parts Engineering feel like an extension of their organisation, providing a dedicated team of engineers to help them through the process. Having a strong relationship with the FAA, Jet Parts Engineering can obtain faster approvals for their certification packages which reduces the overall development time.

As travel restrictions put in place during the Covid pandemic are lifted, the aviation industry is resuming growth with a demand that outweighs available supply. Airlines are navigating the new challenges, and cost savings will no doubt be an important consideration. In an industry that is always evolving, Jet Parts Engineering prides itself not only on staying ahead of the curve, but also on the level of care and service they are able to offer their airline and MRO customers. By making aircraft maintenance more affordable, Jet Parts Engineering plays a significant role in keeping aircraft flying.



PMA Approval allows Jet Parts Engineering to produce replacement aircraft parts..

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Q & A

In the
hot seat...

Scott Butler
Chief Commercial Officer
Ascent Aviation Services



What attracted you to this industry?

I've been fascinated by the aviation and aerospace industry since I was a kid. Growing up having family members who are pilots and engineers, really let me see this great industry as a true career path. I then pursued aeronautics and aviation in college at the University of Illinois and haven't looked back since.

What does a typical day involve in your role?

My typical day is never typical, and that's the best part as it always changes with our customers' needs. I'm usually split evenly between developing new business, working customer issues and managing Ascent's strategic growth.

Briefly, tell us about the key capabilities and solutions at Ascent?

Ascent Aviation Services is privately owned, Class IV 14 CFR Part 145 certified repair stations and one of the largest aircraft maintenance operations in the world. Ascent provides a full lifecycle of maintenance, storage and reclamation services to owners, operators and lessors of widebody, narrow body and regional jets. With multiple sites now in Arizona and New Mexico, Ascent is ideally situated as a one-stop-shop for all aircraft fleet service, storage and end of life needs. Ascent Aviation Services operates in multiple facilities in and across the arid southwest United States, providing an ideal year-round climate for aircraft maintenance,

repair, overhaul and storage.

Airlines are now ramping up operations. What is your outlook for your storage and reclamation services?

This market is in a very dynamic state now. We've seen a lot more transactions occurring in 2022 and will continue in the years ahead. The storage work remains level as we are starting to see the wave of retirements coming that were expected pre-COVID. This will also lead to more reclamation work as flying is leading to increased USM demand.

Tell us about the new hangar under construction and the work that will be conducted?

We're very excited to bring Roswell into our portfolio of solution providers. We've already started storage, flightline, RTS and reclamation work in 2022 and will continue this until the hangar is built. The 777X sized hangar will be completed in Q1 of 2023 and we are already having customers lining up for slots in this underserved location. Our hangar will be able to perform all types of heavy checks from regional jets to the largest widebodies in the market, from all different OEMs.

What is new in terms of back shop services?

We have an exciting second half of 2022 coming in our backshop

and component offerings. We recently completed the purchase of landing gear overhaul capabilities and will be completing the certification process by end of August 2022. We are excited to offer this new capability to our USM and heavy maintenance customers. We will begin to focus on B737 and A320 landing gears and then expand as our customers need. We are already mapping out additional component overhaul capabilities for 2023 and beyond to meet market demand.

How is Ascent responding to the demand for cargo conversions?

Ascent is managing much of the aircraft retirements and transitions that are going to conversion lines. Additionally, we have partnered with Sine Draco to perform the touch labour for their A321 P2F modifications out of our Tucson facility. We are currently looking into widebody P2F programmes and we will continue to serve our cargo customers' maintenance needs.

What are you most looking forward to in the months ahead?

I'm looking forward to meeting customers in person again at all the upcoming events. It's exciting to see the industry recover and all the new enthusiasm in the market. There have been several new customers emerging from the COVID years who are constantly innovating and bring a fresh take into the market. I truly am grateful that I'm able to be a part of this enjoyable industry which truly treats each other as family.





Ascent is ideally situated as a one-stop-shop for all aircraft fleet services.



Ascent can manage the full spectrum of interior cabin work.



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»»»» — *on the move*



Kira Chong

Kira Chong has joined Air Finance Germany (AFG) as VP Sales in Singapore. She has more than 20 years of experience in various management and sales and marketing roles in business and commercial aviation. Before joining AFG, Chong worked for The Boeing Company and Bombardier in sales and marketing positions. She was also responsible for the

marketing efforts in Asia Pacific for Titan Aviation Leasing, a cargo aircraft lessor. Chong holds degrees in accounting and finance and in business administration. She obtained her master's degree from Macquarie Graduate School of Management in 2005. She is based in Singapore.

GA Telesis (GAT) has named industry veteran **Jim Sokol** Vice President of Sales – Americas for the Flight Solutions Group (FSG). In the role, Sokol will support GA Telesis' global ecosystem by providing the highest level of team leadership and customer advocacy. Jim leads the Americas sales team and brings a superior level of established integrity, aviation acumen, customer relationships, and operational experience, supporting FSG's commitment to expanding GA Telesis' footprint in the industry. Sokol's responsibilities will include sales, services and support of all USM material, tool/GSE offerings, OEM distribution and logistics advocacy in the region. Sokol joined GAT in July 2022 and has 40+ years of experience as an executive leader in the airline, MRO and transportation sectors.

Tony (Toshinori) Kondo has joined Werner Aero as Executive Vice President. He is expected to be instrumental in leading the company in its next business phase. Prior to joining Werner Aero, Kondo spent the past 14 years in the aircraft and engine leasing business within Sumitomo Corporation. In 2014, he was a founding member of SMBC Aero Engine Lease (SAEL), which has grown to become one of the leading engine leasing companies globally. His role in SAEL was Head of Trading, where he was in charge of all trading activities globally. In 2018, he was selected by Airline Economics as a member of the prestigious "40 under 40" club. Kondo is a graduate of Kyoto University with a degree in economics.



Barry Hirons

East Midlands-based global engine and aircraft consultants, TGIS Aviation Limited, continues to grow its aviation expertise with the addition of **Barry Hirons** who joins TGIS Aviation as Technical Director. Hirons has over 33 years' experience in aircraft maintenance covering technical operations and providing professional services in support of

aircraft leasing and insurance activities. His specialist areas of expertise lie in aircraft asset management, managing complex aircraft lease transitions and modification programmes along with surveying, reporting and adjusting on aviation-related insurance claims.



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