

# MRO

July 2021



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## Start-ups and LCCs create new opportunities for aviation services

**R**eportedly, there are over 130 start-up carriers taking off between 2021-2022 despite all the significant challenges the Covid-19 pandemic has brought with it. It appears that discounted operating costs and filling the gaps left by defunct airlines are some of the reasons behind the airline start-up boom we are seeing.

Certainly, many of the OEMs and aviation services specialists we have spoken to over the last several months have stated that new airline ventures have created new opportunities and helped fill some gaps left by airlines that went bankrupt.

Just two months ago for instance, Embraer announced that it had signed a long-term pool programme agreement with new U.S. operator Breeze Airways to support a wide range of repairable components for the airline's E190s and E195s fleet. The agreement includes full repair coverage for components and parts, as well as access to a large stock of components at Embraer's distribution centre, which will support the start of the airline's operation.

Around the same time Lufthansa Technik signed a ten-year total component support contract with Canadian ultra-low-cost carrier Flair Airlines supporting their fleet of 737 MAXs. Up to 24 aircraft from the airline's current and future fleet are included over a period of ten years. Support for the aircraft started in April 2021. Flair Airlines also announced the start of a partnership with Wright International covering line maintenance services for some of the MAX 8s at Toronto Pearson Airport and the Region of Waterloo International Airport. The services will include transit and overnight services as well as A checks in a dedicated hangar space.

Flypop, which has been in the making long before the pandemic also made some progress in July 2021 by announcing that London Stansted would be its operational base for its planned low-cost long-haul services and seemingly this will open opportunities for airport services at Stansted. Similarly, Norwegian carrier Flyr, which officially started operations in June 2021, signed up Aviator Airport Alliance for the provision of a full range of aviation services at 15 airports across the Nordics.

These, and other similar developments over the last few months certainly should symbolise a gradual recovery for the industry.

**Keith Mwanalushi**  
EDITOR

Lufthansa Technik supports Flair Airlines' Boeing 737 MAX 8 aircraft.  
*Photo: Flair Airlines*



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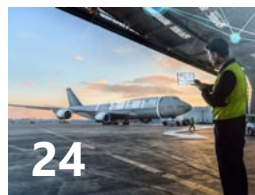
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## Joramco concludes successful participation in MRO Middle East 2021 conference and exhibition

Joramco, the Amman-based aircraft maintenance, repair, and overhaul (MRO) company and engineering arm of Dubai Aerospace Enterprise (DAE), has concluded its successful participation in this year's MRO Middle East Conference and Exhibition. Throughout the high-profile two-day event—an annual engagement that brings together the region's leading players in the commercial aircraft aftermarket—Joramco was an active and visible presence, participating in industry-leading discussions and signing several strategic agreements. As a direct outcome of the company's participation in the event, Joramco formalized several important agreements with both new and existing partners, including a framework agreement with VD Gulf, a renewal of

its consumable and expendable support agreement with Boeing, and a memorandum of understanding with Lufthansa Technik Middle East. Additionally, on the first day of the conference, the company's CCO, Fraser Curie, was welcomed as a speaker at the Go Live Theatre, where he discussed the importance of cooperation and its impact on ensuring business continuity. Speaking at the conclusion of the conference and exhibition, Joramco CEO Jeff Wilkinson said, "Our participation in this year's MRO Middle East was yet another stellar demonstration of Joramco's industry leadership, not only across the MENA region, but on a global scale. In particular, we hope that our demonstrated commitment to cooperation—with partners, customers, and other industry players—will serve as a model for the greater aviation sector and will help guide the industry as it continues to recover from the impacts of the pandemic. Above all, Joramco's fruitful participation in MRO Middle East 2021 is evidence of the important role we will continue to play in helping the aviation sector soar to new heights."



Photo: Joramco has concluded its successful participation in this year's MRO Middle East Conference and Exhibition

## Sine Draco Aviation Development inducts prototype A321-200 SDF for heavy-maintenance visit



Photo: Sine Draco A321-200 SDF rendering

Sine Draco Aviation Development (Sine Draco) has reported that its prototype A321-200 SDF has been inducted for a six-year heavy-maintenance check at Ascent Aviation Services in Tucson, Arizona. Conversion of the prototype airplane to the all-cargo configuration is planned to take place immediately following the heavy maintenance check. The Sine Draco A321-200 SDF passenger-to-freighter conversion offers the optimal economic solution for the next-generation narrow-body freighter. Its design includes installation of a 142-inch-wide by 86-inch-high main deck cargo door, Class E main deck cargo compartment with fourteen 88-inch by 125-inch container positions. The lower cargo compartments can also accommodate ten containers, with the A321 being the first airplane type in the narrow-body

freighter class with this capability. The six-year heavy-maintenance visit includes a comprehensive list of maintenance tasks to be accomplished ensuring that the airplane is maintained in accordance with the Airbus A321 Maintenance Planning Document (MPD). Inspections and repairs of aircraft structure, systems and avionics, and replacement of the legacy flight management guidance computer with FMS Thales R1A, and FG 2G standard will be completed. During maintenance in September 2020, an Automatic Dependent Surveillance–Broadcast (ADS-B) Out system and overhauled main and nose landing gear were installed. Sine Draco is a multi-national corporation with headquarters in Nanchang, Jiangxi Province, China with a subsidiary in Bellevue, Washington, U.S.A.

## Diehl Aviation and HAECO Cabin Solutions enter into strategic commercial agreement

HAECO Cabin Solutions, a business unit of the HAECO Group specializing in aircraft seating, interiors, and cabin reconfiguration, has entered into a preferred strategic commercial agreement with Diehl Aviation to deliver a wide range of aircraft cabin projects including complex, bespoke installations, as an integrated supplier. Combining their core competencies and experience, Diehl Aviation and HAECO Cabin Solutions are jointly poised to become the market leader in aircraft cabin optimization projects. The companies' joint capabilities allow them to seamlessly offer all aircraft interior components including sidewalls, stowages, lighting, galleys, lavatories, seating, reconfiguration engineering, certification, and installation.

## Liebherr welcomes HAECO as new partner for heat exchanger servicing

Liebherr-Aerospace has built up an international service network of partners in order to improve the operational availability of heat transfer equipment. The company has established test and cleaning capabilities as close as possible to flight operations around the globe.

Together with Liebherr-Aerospace, those partners assure unique OEM quality with highest product reliability. The HAECO Group is the latest company to join this network to support customers in the Asia Pacific Region. Established in Hong Kong in 1950, the company has developed its industrial capabilities to now perform tests and cleaning of heat exchangers manufactured by Liebherr-Aerospace for the Airbus A320 aircraft family.



Cleaning of a heat exchanger

Photo: Liebherr Aerospace

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## AES awarded EASA STC for installation of Bluebox W-IFE on Airbus A320 variants

Aerospace Engineering Solutions (AES), a U.K. and Ireland aerospace design and certification organization, has been awarded the Supplemental Type Certificate (STC) for the installation of the aircraft-powered version of Bluebox Aviation System's wireless in-flight entertainment (W-IFE) system, Bluebox Wow, by the European Union Aviation Safety Agency (EASA). Recently issued by EASA, this latest STC (No. 10076801) applies to all Airbus A320 variants with an added feature of an automatic pause on PA functionality that pauses playback in the event of announcements from the flight deck or cabin crew. AES believes this certification will open opportunities to provide aircraft operators of single-aisle, and wide-body aircraft in the future, with Bluebox's aircraft-powered W-IFE units. The installation is simple with wiring to the W-IFE units easily accessible via the panels in the aircraft cabin. Utilizing aircraft power eliminates the need for the logistical management of batteries and still offers a considerably lighter and lower-cost system than fully fitted W-IFE.

## Seal Dynamics and Hartwell expand partnership

Seal Dynamics, a wholly owned subsidiary of HEICO Corporation has expanded its long-term agreement with Hartwell Corporation to distribute Hartwell products on an exclusive basis in the Asia Pacific region, effective July 15, 2021. Ron Kato, President of Hartwell, commented "We have partnered with Seal Dynamics for over three years in the EMEA and Americas regions. They have delivered above market results, so the expansion adding the Asia Pacific region is a logical next step in the relationship. This decision will strengthen our ability to deliver high customer satisfaction as well as develop and market new solutions to our global airline and MRO markets".

## FL Technics obtains EASA Supplemental Type Certificate for cargo carriage aircraft modification capabilities in passenger cabin

FL Technics continues with its decisive development of the business tailored to current and future demand in the markets. This time it is the company's DOA team who received an important approval of capabilities to change



Loading of cargo to the freight aircraft

Photo: FL Technics

aircraft interior design by creating cargo carriage capacity on the passenger cabin floor. Such an aircraft modification is considered as major and requires extensive knowledge and technical expertise to be certified by the EASA. However, a rigorous process of approval, that takes up to six months to complete, is worth the effort as it allows FL Technics to provide crucial service to airlines and lessors. Due to the COVID-19 pandemic, partial cargo conversion of passenger aircraft has become increasingly popular as operators need to opt in for freight services and support delivering goods and medical supplies worldwide. This new STC enables maximizing cargo capacity without full aircraft conversion to a freighter. The scope of obtained certification covers one of the most popular aircraft currently in service – the Boeing 737- and has already been applied to the B737-800 fleet conversion project for one of FL Technics trusted clients.

## APOC closes deal for Boeing 777 LDG with Lufthansa Technik Landing Gear Systems U.K.

In a multi-million US\$ contract program, APOC's specialist landing gear division has agreed a long-term lease with Lufthansa Technik Landing Gear Systems U.K. (LTLGS) for a Boeing 777 landing gear. Karolis Jurkevicius, VP Landing Gear Trading & Leasing – APOC said: "We have worked closely with LTLGS for several years and we are extremely pleased to develop this mutually beneficial solution with them for this top-class wide-body asset. We have been able to offer an attractive proposition, underpinned by our solid investment strategy, because our focus on building a long-term relationship gave us insight into their operational cos-efficiency objectives." Identifying suitable assets is a complex business and APOC carefully evaluates LDGs with leases attached if they fit with the division's asset criteria of the highest quality. Currently around 40% of APOC's LDG stock is leased, 30% is allocated to exchange programs and the remaining 30% is set up for additional lease opportunities, part-out projects, and sales.

## GA Telesis concludes distribution agreement with Honeywell for Embraer E-Jet and E-Jet E2 avionics

GA Telesis (GAT) has announced a further expansion of its global distribution agreements with Honeywell as the exclusive provider of avionics components for Embraer E-Jet and E-Jet E2 aircraft. This latest agreement with Honeywell is another example of the strong relationship with GA Telesis' Flight Solutions Group (FSG) in support of the new aviation parts market, first announced in October 2020 to distribute the CFM56-5B variable bleed valve stop mechanism. The seven-year E-Jet agreement, with an option for a five-year extension, is effective immediately. This new product line will permit FSG to supply a large suite of avionics for the Embraer E-Jet / E-Jet E2 family globally.

## Airbus starts assembly of first A321XLR front fuselage



The nose and front fuselage assembly for the first A321XLR has started in France  
Photo: Airbus

Airbus has announced another significant milestone in the building of the first A321XLR: the nose and front fuselage assembly has started in France, following the earlier accomplishment of the completion of the center wing box. Less than two months after the start of structural assembly of the rear and center fuselages in Germany, Airbus teams are taking another significant production step with the structural assembly and installation of systems equipment of the nose and front fuselages at its Saint-Nazaire facility in Western France. Six fuselage sections arrived by road convoy at Airbus Saint-Nazaire from STELIA Aerospace on July 1. Here, including system equipment and flight test instrument, they will be assembled in the third quarter of 2021. "This is a key milestone for the A321XLR. We are on track to support the aircraft's entry into service by 2023" said Martin Schnoor, Head of the A321XLR Program Development Airframe Program.



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## Lufthansa Technik to offer component support for Smartavia's latest aircraft

Russian airline Smartavia is continuing its trustful partnership with Lufthansa Technik through a multi-year agreement covering extensive component services (Total Component Support – TCS®). This new contract governs supply for Smartavia's latest fleet of Airbus A320neo aircraft over a period of six years. Service began in May 2021; the contract includes up to ten aircraft that Smartavia currently plans to operate. With this Total Component Support (TCS®) agreement, the carrier benefits from an individual supply concept that enables short and fast transport routes. The services covered by the contract are customized to fulfill the requirements of Smartavia. A pool of home-base stock for the Airbus A320neo fleet has been set up at Pulkovo Airport (LED) in St. Petersburg. Comprehensive logistics support by Lufthansa Technik offers Smartavia different flexible

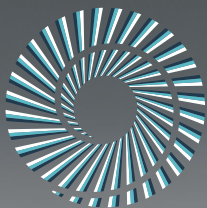


LHT will support Smartavia's latest fleet of Airbus A320neo aircraft

Photo: Smartavia

options that are particularly useful as long as the coronavirus-pandemic still affects air transport. Lufthansa Technik already provides component support

to Smartavia's fleet of Boeing 737NG aircraft. In 2020, Lufthansa Technik also concluded an agreement for engine services with the Russian carrier.



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## TAM receives U.K. CAA Maintenance Organization Approval certificate

With Brexit completed back on January 31 this year, this has led to a number of challenges for Örebro Airport, Sweden-based Täby Air Maintenance (TAM), an independent company, specialized in aircraft maintenance, modifications, repairs, and support, some foreseeable, some not. As U.K. airlines are a very important customer base and with TAM being based in the EU, it has been a period of uncertainty. Hence a very intense period ensued for TAM, which has finally received a U.K. CAA Maintenance Organisation Approval certificate. "With U.K. airlines being very important to us, I am very pleased to see that we now are "back in business" in the U.K. as well, just as we were before Brexit, says Pär Gulle, TAM Managing Director. "Now, we can continue to be a key service provider to regional airlines in the U.K. as well as in the EU and the U.S., supporting them with what they need to keep their Saabs and ATRs in operation."

## TOPCAST acquires Shanghai AML Aviation Technologies to bolster mainland China MRO Service burgeoning growth

Topcast Aviation Supplies (TOPCAST), a global leader in aircraft parts distribution and MRO services, has completed the acquisition of AML Aviation Technologies (AML), a Civil Aviation Administration of China (CAAC) approved aircraft components maintenance company located in Shanghai. AML was established by Aviation Industry Corporation of China in 2002. With diverse testing facilities and repair capabilities, the core services include testing, repair, modification, and overhaul of air conditioning, communication, battery, cabin, fuel, hydraulic and pneumatic, light, water, and waste handling systems. TOPCAST onshore MRO service centre in Shanghai can provide a lower cost, faster turnaround time and more environmentally friendly service to minimize carbon footprint through reduced cross-border logistics. "In longer-term, TOPCAST will set up a warehouse in Shanghai to complement for smooth operations and will implement a dedicated pooling program for lower life cycle costs from the initial core units from each airline customer," said Steve Chua, Managing Director, Global MRO of TOPCAST. Shanghai is the hub city for seven commercial airlines and six cargo carriers, accounting for 2165 aircrafts, 59% of the national market size. This merger and acquisition will further underpin TOPCAST leading status of MRO service provider in the region.



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# From Dublin to Dallas



Dallas has significant aviation expertise already in the region.  
*Photo: DFW*

EirTrade Aviation recently opened a new facility in Dallas expanding its presence in the U.S. **Keith Mwanalushi** caught up with Lee Carey, VP Asset Management to get some insight into the strategic advantages this brings to the business.

**E**irTrade Aviation is a global aviation asset management and trading company headquartered in Dublin, Ireland. In June, the company announced the opening of a new facility in Dallas, Texas, the 22,000 square foot facility will complement EirTrade's existing operations in Europe and Asia. The business is focused on maximising the value of engine assets, its services include technical storage, consignment programmes, technical services – back to birth and current market asset valuations, engine, aircraft and parts' trading, aircraft storage and disassembly and end of life programme management.

Lee Carey, VP Asset Management says the facility in Dallas was opened to increase EirTrade's global footprint – "Dallas was chosen due to its strategic location and aviation expertise already in



Lee Carey, VP Asset Management at EirTrade

the region which enabled us to increase our presence and level of service to our clients in the Americas."

Recently, the facility has begun taking delivery of engines for part out and has a strong pipeline of aircraft engines for part out ranging from CFM56-5B, 7B, CF6-80C2, RB211-535E, V2500-A5. "Along with the focus on engine disassembly, we will continue to focus on both aircraft engines and airframe," Carey reveals.

Much of EirTrade's airframe inventory is located at the other five facilities in Europe due to the geographical location of the organisation's teardown facility in Ireland. Carey says EirTrade will utilise the facility in the U.S. to strategically locate components for both airframe and engine to reduce customer lead times. EirTrade have recently added an





The business is focused on maximising the value of engine assets.  
Photo: EirTrade

additional disassembly line and have teardown slots available for later this year.

The business has been rather fortunate to have experienced significant growth over the last year despite the pandemic and the plan is to continue to build on this momentum. Within the U.S. the company will be targeting both customers and sources for material. "Yes, we experienced a strong financial year over the last 12 months, and it has been evident that there has been some recovery in the aviation industry to date. We are confident of the market's recovery to pre-Covid levels and expect this recovery to be gradual over the next 12-18 months as passenger travel increases."

Carey is confident in the strong recovery of air travel within the U.S. due to the large domestic air travel market and increase in passenger numbers in the past months. "In many respects this could be expected to somewhat replicate the recovery in China which also has a large domestic market.

"As U.S. operators continue to remove their aircraft from storage there will be an increase in the level of maintenance activity and a heightened demand for

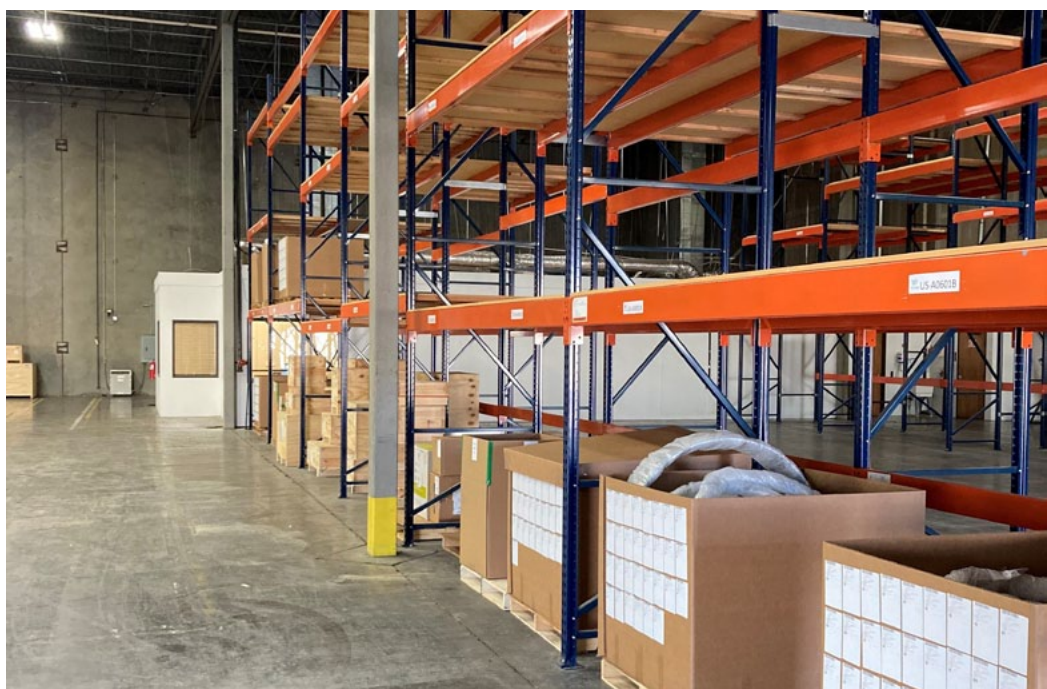
aircraft components. The opening of the Dallas facility is a timely and strategic one that will allow us to support these operators during this time."

Having achieved growth during a

pandemic is certainly no mean feat. Carey explains that this achievement was a result of EirTrade having a strong reputation with the world's MROs, airlines and lessors which has enabled their global reach during this time, in conjunction with maximising opportunities to reduce clients' costs of early lease returns, maintenance events and aircraft transitions.

Furthermore, he says EirTrade has capitalised on the availability of aircraft and engines for sale at distressed prices which has allowed the company to provide greater value to its clients. "We have always aimed to service a wide variety of aircraft engine platforms across all Airbus and Boeing types allowing the organisation to strategically focus on servicing freight operators during the Covid-19 pandemic which saw a burgeoning demand for air cargo."

EirTrade are now hoping that with their new U.S. facility they will soon become as well-known in the U.S., Canada, Caribbean, Latin and South American regions as it is across Europe and Asia.



**“As U.S. operators continue to remove their aircraft from storage there will be an increase in the level of maintenance activity.”**

*Lee Carey, EirTrade Aviation*

EirTrade's Dallas facility.  
Photo: EirTrade



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Ghana MRO signing press conference.  
Photos: Alton Aviation

# MRO prospects put feasibility plan in motion

The U.S. is funding a feasibility study for the establishment of an MRO facility in Ghana. **Keith Mwanalushi** looks closer at the opportunities for aircraft maintenance activity and the demand for such services in the country and the region.

In June, the U.S. Trade and Development Agency (USTDA) announced grant funding for a feasibility study to support the development of an MRO facility at the Kotoka International Airport (KIA) in Accra, Ghana. The grant was awarded to Ghana's Aerojet Aviation Limited, which selected New York-based Alton Aviation Consultancy to conduct the study.

Jonathan Berger, Managing Director at Alton Aviation Consultancy tells *AviTrader MRO* that the Ghanaian government has prioritised the further development of KIA in its capital Accra to create the premier aviation hub in West Africa. "Industry data demonstrates the positive economic benefits that result from a thriving commercial air transport regional hub," he states.

Berger says to attract additional international air carriers, as well as foster growth of domestic airlines, the ability to cost-effectively repair and overhaul commercial aircraft within the region is required. "That said, prior to making any multi-million-dollar aviation infrastructure investment including an airframe heavy maintenance hangar facility, it would be considered standard practice to perform a comprehensive

feasibility study to confirm an effective and efficient use of capital."

MRO facilities on the African continent only represent approximately 4% of the global MRO market, with no MRO facility in West Africa. This study builds on previous USTDA feasibility study support in 2009, 2011, and 2012 to undertake enhancements at Kotoka International Airport.

The USTDA said strengthening West Africa's aviation sector by creating the region's first MRO facility and training centre will be a critical resource for regional airlines, and it will create opportunities for U.S. companies to supply innovative technologies that will allow the facility to be truly state-of-the-art.

"Today, no independent MRO facilities exist in the West African region," Berger notes. "Therefore, all airframe, engine, and component MRO must be exported which drives significant logistics costs for regional airlines and cargo operators." In addition, Berger informs that there are currently no certified aircraft technician training academies in the region which



USTDA grant funding for a feasibility study to support the development of an MRO facility in Ghana.  
Photo: Alton Aviation



Jonathan Berger MD Alton Aviation Consultancy

also places regional carriers at a competitive disadvantage. "In order to effectively compete and nurture a thriving commercial aviation industry, establishment of a world-class technician training academy that can feed a state-of-the-art MRO facility will have benefits for generations to come in Ghana and the wider region."

The U.S. embassy in Ghana reiterated that having an MRO at KIA presents Ghana with the opportunity to propel itself into the position of an even stronger regional and global leader in the aviation sector and boost regional economic growth, safety, security, and mobility.

Mazisi Parkes, Chief Executive Officer at Aerojet Aviation, also commented: "We are excited about this project and grateful to the USTDA for agreeing to support the development of the MRO. The state-of-the-art facility to be developed at KIA in Accra will serve as a centre of excellence for the delivery of critical aviation technical support services and contribute to the economic viability of regional airlines as well as national carriers. Of special importance to Aerojet is the establishment of a world-class training centre to prepare Africa's youth for the high-tech aviation jobs of the future."

Berger further states that commercial air transport has the power to transform economies and communities, but it can only do so when reinforced by solid aviation infrastructure, including aircraft maintenance facilities. "We look forward to collaborating with USTDA and Aerojet to develop the first world-class MRO operation in West Africa."

Speaking specifically on the feasibility study, Berger explains to this publication that the objective of the study will be to explore the MRO supply and demand dynamics in Ghana and the broader West African region to identify the highest value fleet types to service, understand

the competitive landscape and existing supply chain, define the human capital and training requirements, and determine the optimal hangar facility size. In addition, Alton will prepare a robust financial model and bankable business plan to be leveraged by potential investors.

This grant supports the Prosper Africa initiative, a U.S. government initiative to substantially increase two-way trade and investment between the United States and Africa. It also supports President Biden's Build Back Better World initiative to apply U.S. technologies and equipment to help with Covid-19 recovery.

***"The objective of the study will be to explore the MRO supply and demand dynamics in Ghana and the broader West African region."***

Jonathan Berger, MD Alton Aviation Consultancy





# AMOS. AGAIN.

**"We are convinced that AMOS is the perfect match for DRF Luftrettung. The fact that the very first AMOS customer was also an air rescue company – who still relies on AMOS after almost 30 years – reflects the versatility of AMOS to cater for the unique needs of rotary wing as well as fixed wing aircraft."**

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.





The GTF powering the new E195-E2.  
Photo: Embraer

## Building capacity for new engines

MROs are increasingly adding capabilities to service new engine platforms, so **Keith Mwanalushi** examines the strategies and investment in processes for these propulsion technologies.

For several months we have seen many of the MROs and aftermarket specialists substantially focus on engine maintenance, for the most part due to the slowdown in airframe work caused by the Covid pandemic. Concurrently, MROs such as SR Technics, Kellstrom Aerospace and others have used this 'quiet season' to announce capabilities and solutions for new engine types.

Despite the Covid crisis, AFI KLM E&M have maintained significant investments in their engine MRO capabilities. They are in the process of adding the Rolls Royce Trent XWB and the Pratt & Whitney PW1500G to the list of capabilities in Paris, supporting the newest additions to their airline fleet. "We continue to invest in our capabilities on CFM International's LEAP-1B and are actively exploring further opportunities

to expand our activities in the LEAP market," confirms Michael Grootenboer, SVP AFI KLM E&M Engine Product. For engines, Grootenboer says the engine predictive maintenance solution, (PROGNOS) has proven particularly valuable to LEAP operators – "We believe that for next generation engines, with significantly greater data generation and complexity, predictive maintenance will be an important differentiator and we therefore continue to invest in next generation predictive capability."

AFI KLM E&M say they will continue to build on extensive repair capabilities, keeping a close eye on new materials, part families and processes. Grootenboer explains that these investments benefit the full range of a broad portfolio of supported platforms, such as the GENx-1B and GE90. "Furthermore, we have intensified our efforts on innovative

solutions such as remote services, smart works coping and our customers portal which were particularly beneficial during the Covid crisis, and which will continue to add value for our customers in the future.

"Naturally, we closely follow all developments in the market across our entire portfolio and continuously adjust our offerings according to the needs of our customers," he states.

In May, SR Technics announced it had started implementing MRO services on the LEAP-1B engine at its Zurich facility. Based on the agreement with CFM, which was concluded at the end of 2020 and targets the authority certification by Q1 2022. SR Technics' Quick Turn Line, launched in September 2020, is expected to add value, and greatly complement the initial capabilities on this engine type. "We have a strong





MROs have developed close ties with engine OEMs despite changes to the aftermarket.  
Photo: AFI KLM E&M

partnership with CFM International and its parent companies GE Aviation and Safran Aircraft Engines, so this comes as a natural and essential move forward for SR Technics besides the services already provided for line maintenance on the Boeing 737 MAX," Florent Leforestier, VP Development New Engines at SR Technics tells this publication. Additionally, they have made significant investments in tooling and training over the past 12 months to fully support market demand.

Likewise, GA Telesis also signed a recent agreement with CFM to provide MRO support



Florent Leforestier, VP Development New Engines, SR Technics

for LEAP-1A/-1B engines while also exploring other engine models with other OEMs simultaneously. "We invest in new facilities and continually evaluate strategies to serve all engine models, whether current or next-generation," comments Russell Shelton, President Engine Strategy Group.

Specifically, GA Telesis have testing capabilities in both Finland and the U.S. In addition, Shelton informs that they are expanding their Specialised Procedures Aeroengine Hospital (SPAH) facilities in Helsinki and recently announced a joint venture with Air Transport Services Group (ATSG) to construct a new SPAH in



Russell Shelton, President Engine Strategy Group, GA Telesis

the central U.S. to serve North and South America.

Engine types like the CFM LEAP and P&W GTF models will remain on-wing for some time before the next major overhaul, so for many, the focus will be on new parts distribution, on-wing support, and minor repairs, including storage.

Jeff Lund, CEO at Kellstrom Aerospace Group explains that they have adopted a lifecycle support strategy that begins with a new part OEM distribution business such that Kellstrom supports airline buyer-furnished-equipment (BFE) and entry into service initial provisioning (IP) requirements on behalf of OEM partners. He says BFE IP requirements typically take place prior to or at new aircraft delivery when aircraft are under OEM warranty. "Kellstrom also supports the OEM warranty requirements on behalf of some of our OEM partners with inventory stocking locations on multiple continents. By the time the OEM engine warranty expires, Kellstrom is fully provisioned on the parts and already established source of supply to the airlines."

In addition to the new part OEM distribution strategies, Lund indicates that they are also supporting customers through the wholly owned subsidiary Vortex Aviation by providing the necessary services to extend time on-wing through OEM approved maintenance practices and tooling by leveraging expertise to optimise support for the next generation of engine models.



Jamil Diwan EVP Sales and Business Development at HAECO



“OEM relationships are critical when addressing infant mortality issues with new engines, that is when technical issues come up early in the engine’s life before the support network has been fully developed.”

*Jeff Lund, Kellstrom Aerospace Group*

Jeff Lund, Kellstrom Aerospace Group CEO

At HAECO Global Engine Support, Jamil Diwan EVP Sales and Business Development says they always endeavour to stay on the leading edge of technology while supporting the legacy and classic fleets. "Having said that, we have already begun to be involved with the next generation engine models, which include work scopes within our current capabilities, future work scopes and procurement of tooling. We also signed agreements with the OEMs for technical publications and engineering. A good portion of our customer base is heavy into the next generation engines, so we work closely to make sure we can provide support."

### On trend with engine maintenance processes

Over time engine OEMs have increased their control on the aftermarket and creating their own solutions in the market and Diwan feels OEMs have learned

significant lessons from the past engine model generations and as such, they have almost "locked down" access to these engines from all perspectives. He reckons in this regard, MROs wanting to ensure their place in these next generation engine markets needed to become part of the OEM networks. "We think that the pre Covid-19 trend of shop visits will likely reduce and be replaced by hospital visits to reduce cost, increase TAT and the engine on-wing time. Furthermore, materials for the next generation engines will not be readily available in the open markets as we have been accustomed to. Materials, including used serviceable materials, will most likely need to be sourced from the OEMs," Diwan anticipates.

It certainly appears that the Covid crisis has accelerated trends some MROs were observing in the past few years. While larger work scope shop visits will





“New engines, by definition, are at the beginning of their operational life, so repairs naturally develop over time.”

*Florent Leforestier, SR Technics*

Engines like the P&W GTF will remain on-wing for some time before the next major overhaul.  
*Photo: Airbus*

always have their place in cost effective engine maintenance programmes, smaller interventions, whether on wing, near wing or in a hospital visit setting, can often assist airlines to keep their operations moving in the short term with a lower financial impact.

Over at SR Technics, they have identified digitalisation as a key trend going forward. Leforestier says this will ultimately improve the efficiency of MRO processes and enable the usage of enhanced information systems which provide “real-time” data from the shop floor, allowing better prediction, visibility, and decision making. SR Technics has already launched a digital transformation programme enabling end-to-end processes.

Additionally, Leforestier highlights the trend for predictive maintenance, which is supported by engine processing data, including Quick Turn Line and on-site fast and flexible repairs, including module replacement as an alternative to a shop visit. He feels repairs will also enter a new phase as new processes emerge, such as 3D printing.

### Building partnerships to achieve cost efficiency

Clearly, MROs have developed close ties with engine OEMs despite changes to the aftermarket landscape and these partnerships are vital in providing cost effective MRO and aftermarket services for new engine types like the

LEAP and GTF, especially for the aircraft operator. “New engines, by definition, are at the beginning of their operational life, so repairs naturally develop over time,” notes Leforestier. He continues: “However, as technologies are getting more complex and with protected IPs, strong relationships and cooperation with



Several MROs have announced capabilities and solutions for new engine types.  
*Photo: Keith Mwanalushi*



AFI KLM E&M has maintained significant investment in engine MRO capabilities.  
Photo: AFI KLM E&M

the OEMs will be essential and as good as mandatory. With access and strong ties with engine OEMs, which SR Technics has built over the last decades, we are well positioned for the new engine types."

It is not surprising that AFI KLM E&M has built strong relationships with all major OEMs over a long period of time and no doubt that relationship has been a fundamental enabler to offer optimised support to aircraft operators and having the ability to tap into that experience as an airline-MRO is a clear advantage. Grootenboer highlights that they will often collaborate with the OEM on innovative solutions. "It also allows us at times to challenge the OEM's way of thinking and help them to look at things from the perspective of the operator and to develop solutions in a way that delivers better value to our airline customers."

Grootenboer continues saying the increasing complexity and cost of new

generation engines means that only the largest engine MRO providers, like AFI KLM E&M, will have the knowledge and scale to continue to provide a level of cost-effective MRO services.

Shelton from GA Teleses agrees that OEM relations are incredibly significant – "We are fortunate that we have beneficial relationships with the OEMs and look to enhance them as we move into the future. It is not our goal to compete with the OEMs but rather act as an extension to their services."

Additionally, Lund points out that OEM relationships are critical when addressing infant mortality issues with new engines, that is when technical issues come up early in the engine's life before the support network has been fully developed. Aftermarket partners are critical even in the early life of an engine platform, "if only the OEMs can support the product during entry into service and if there are any product issues it could

negatively impact the ability to quickly address it and return engines to service and examples are the Trent 1000 in its early life as well as the GTF as it first entered service," says Lund.

With the significant cuts made by OEMs and MROs in 2020, Diwan from HAECO stresses the strong need for trusted network providers to support the existing fleet as well as future order deliveries. "This becomes really apparent since all next generation engines are coming with some sort of PBH agreement." Diwan feels that the OEMs cannot support the entire fleet on their own, especially for large Unscheduled Engine Removal (UER) events and warranty items. So, the consensus is that agreements must be in place with the OEMs to provide and achieve cost-effective MRO and aftermarket services support for next generation engines.





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## Realising the digital potential

The push for digital technology in aerospace continues.  
Photo: Lufthansa Technik

Aviation and MRO businesses are actively seeking digital solutions to overcome the current challenges faced by the industry, **Keith Mwanalushi** looks at the current influences for the adoption of new technology solutions.

**M**RO has a notorious reputation for falling behind every other sector of aviation in the adoption of digital solutions; but things are changing. An interesting development recently for instance is Digital Flight, a new hub for digital technology in aerospace that launched in July, the online hub is designed to promote the digital technology available to the aerospace market.



Kirk Baugher, EVP, Business Development at PENTAGON 2000

Looking back though, airlines and MRO's have pursued digital initiatives since the "green screen" days of the 1980's. Kirk Baugher, EVP, Business Development at PENTAGON 2000 Software reminds what started as in-house software development in the early years was supplemented by a set of packaged software from software vendors. The set of third-party software products typically required teams of in-house IT staff just to maintain and integrate the separate packages.

"If we look at current times, most airlines and MROs are utilising a mix of systems that include internally developed software, vendor packages, and more modern web or cloud-based systems. The forward-thinking shops have taken a more wholistic view of their enterprise applications and consolidated their IT infrastructure using modern platforms," Baugher notes.

At Swiss-AS they have been looking to further advance the digitalisation of processes over and above what they have offered for some time now. As well as paperless processes by utilising e-signature for the production staff, they plan to support the store personnel with mobile solutions, reports Chris Clements, Sales Representative at Swiss-As. "An area of interest has been start-ups that are looking to get up and running with the



“The difficulty is in developing constructive algorithms that can transform statistics into dynamic and beneficial predictions.”

*Camilo Sarmiento, TRAX*

## DIGITALISATION AND AUTOMATION



The pandemic has boosted the adoption of automation and digitalisation.  
Photo: Lufthansa Technik

most efficient, digital processes possible from day one,” observes Clements. He says whilst a large part of the aviation industry has had to focus on survival, there are some operators that have taken the opportunity to build new business and, regardless of their business model

be it LCC, scheduled, cargo or MRO, they are understandably keen to harness the best that is available on the market.

Additional areas of interest lie in the digital procurement processes, utilising Spec2000 standards, to further enhance the digitalisation processes available to the operators and how they interact with their vendors.

The experts at TRAX see a couple of reasons why the pandemic has boosted the adoption of automation and digitalisation. “One clear motivator has been the need to adapt work processes to meet social-distancing requirements, avoid ‘contamination’ from paper handling and to enable remote work conditions,” says Camilo Sarmiento, eMobility Product Owner at TRAX. He adds that the remote inspection capability is an example of responding to today’s challenging pandemic restrictions. “Remote digital visual inspection allows a mechanic or inspector to look at objects that are at an out-station or at an aircraft storage location. In addition, regulatory authorities have begun to remove

roadblocks to such methods.”

In 2020, flight loads were significantly reduced, and redundancies increased due to the pandemic, as Sarmiento looks back - “yet some airlines and MROs were still able to maintain staffing levels due to government subsidies, this meant they

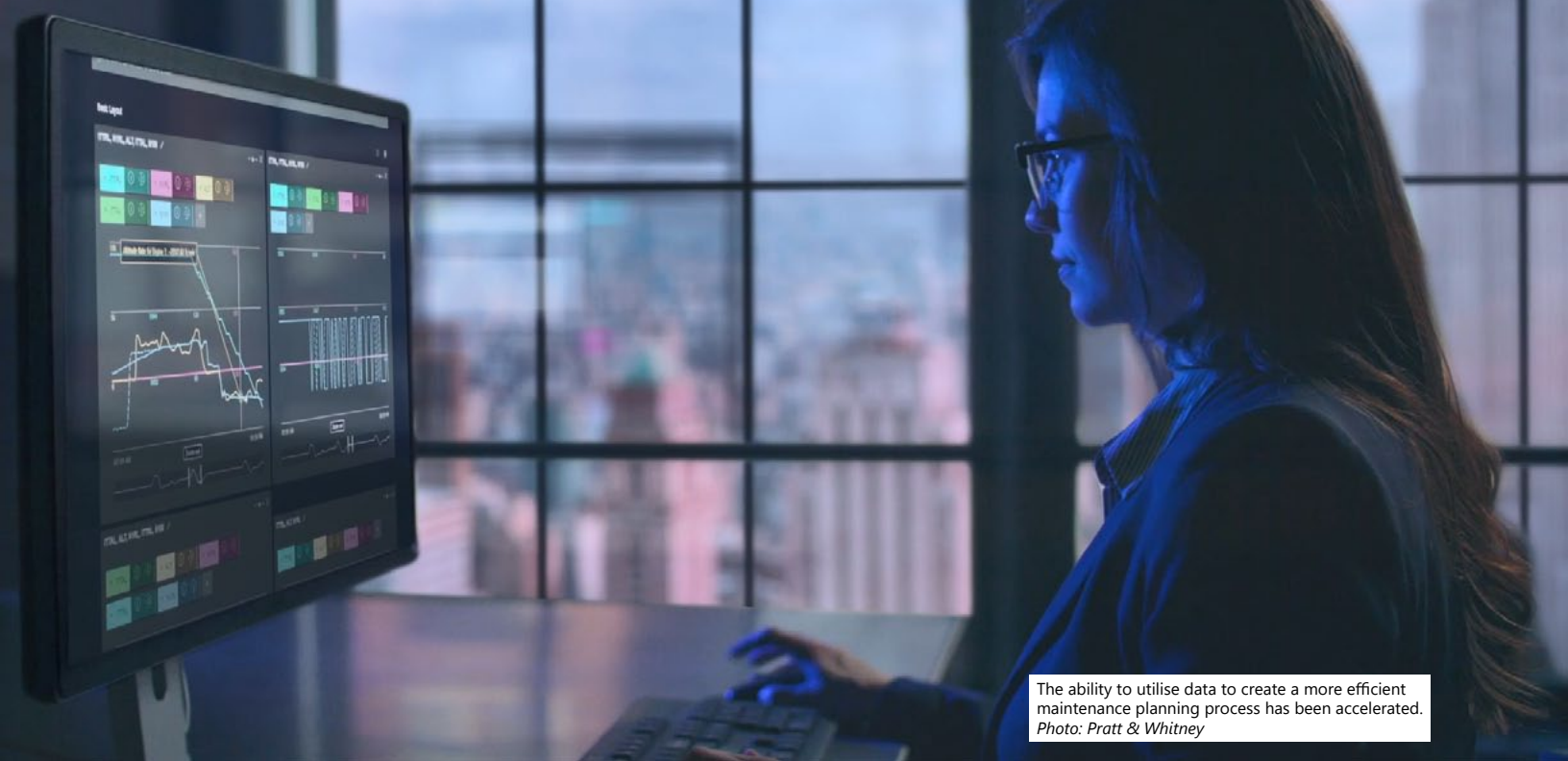


Chris Clements, Sales Representative at Swiss-As



Camilo Sarmiento, eMobility Product Owner, TRAX





The ability to utilise data to create a more efficient maintenance planning process has been accelerated.  
Photo: Pratt & Whitney

could devote resources to technology implementation plans such as digitising their operation, implementing new technology, and training their workforce.” And at TRAX they found that some of their operators did proceed with such plans. “The cargo business appears to

have grown significantly and a large proportion of TRAX customers in this sector have also started paperless projects to enable efficiencies,” he says.

Over at AJW Technique, they have been testing several technologies via proofs of concept. “For example, we

tested asset location tracking using RFID and Bluetooth,” tells Sajedah Rustom, CEO at AJW Technique. “The proof of concept deployed an off-the-shelf solution developed by a software development company, originally designed for engines, which we customised for repairable components and tooling.” Rustom expects that in the long run, this application will create increased internal workflow efficiency by ensuring adherence to turnaround time, fast flow through each repair gate, with pre-emptive bill of material and capacity planning. “It will maintain accuracy of turnaround time clocking on repairs from receiving right through to quality approval. The application of RFID on the tooling side further enhances repair efficiency by saving our technicians time searching for tools during a repair, especially where major tooling is shared amongst repair cells. It also provides the added benefit of proactively managing calibration, cost and down-time of tooling, which can cause turnaround time delays if not strictly managed.”

AJW are also presently designing a tablet application, integrated with an ERP system, to streamline the entire workflow of the business. Rustom states that from receiving to shipping, technicians, material controllers, and others will have one-touch access to all the information they require during a repair form bill of



Sajedah Rustom, Chief Executive Officer, AJW Technique



material to task list to repair manuals and technical data. – “This will hugely improve direct touch-time spent by technicians on doing what they do best.”

Arun Srinivasan, Associate Director, Strategy, Engine Health Management at Pratt & Whitney notes that several airlines are working to optimise operations and minimise costs

so there is a trend towards higher digital investments. He says the ability to utilise data to create a more efficient maintenance planning process has been accelerated in a post-Covid world. “Using flight data analytics, airlines can move to an on-condition maintenance plan. Airlines are utilising data analytics to augment their internal engineering and maintenance teams so that they can more easily integrate flight operations and engine health insights during service and with work scope customisation for MRO shop visits to allow targeted maintenance actions and improved turnaround times.”

### Will technology and data strategies change after the Covid crisis?

For many companies, the Covid crisis has been a trigger to change their technology and data strategies as increased remote work called for a higher degree of digitalisation and the capabilities of data analysis have further improved. Jonathan Mayer, Head of Innovation, Data and Quality at Spairliners GmbH reckons this will absolutely continue post pandemic, as we observe a desire for even more efficiency in the processes and exchange of information between operators and suppliers.



Arun Srinivasan, Associate Director, Strategy, Engine Health Management, Pratt & Whitney

Mayer says in the field of component support the crisis has led all players into a more “balance sheet driven” approach in the management of inventories. “This is causing an acceleration of inventory management solutions aimed at improving the operational support while decreasing the amount of assets on shelf.” Spairliners have been at the forefront of using data analysis

coupled with engineering expertise for many years now and developed tools to calculate and calibrate optimal stock levels at component pool locations as well as the on-site inventories that they provide to their customers. In practice, Mayer indicates that this translates into high coverage levels for airlines, meaning a low level of AOG situations, while keeping just the right assets on site.

“The importance of data driven decision support tools to leverage on the wider spectrum of

inventory optimisation solutions is also growing. The increased availability of components on the used serviceable material market, coupled with declining prices, is further fuelling this approach as it allows for more levers to provide the right support to airlines,” Mayer continues.

David Purfurst, Global Pre-Sales Director at Rusada Aviation MRO Technologies argues that there was already a push towards mobile apps and remote working prior to the pandemic, “so we don’t feel that strategies will change post Covid, rather that certain ones will be accelerated.”

Purfurst emphasises that the benefits of being untethered from your PC are clear, which is why Rusada have put a lot of work in the past 18 months into their apps. ENVISION Tasks, for instance was released earlier this

year to streamline maintenance execution and there are two more on the way for 2021, he reports. “These apps allow you to work more efficiently and collect more data on the go which is why so many companies are looking to adopt this technology.

“With organisations having to work with less resources in a post Covid world, the tools that can provide the greatest gains in



David Purfurst – Global Pre-Sales Director at Rusada

efficiency for the lowest amount of investment will be the most in-demand," Purfurst suggests.

As operators and MRO's transition to the post COVID era, they are faced with some new realities. And as Baugher from Pentagon 2000 highlights, technology has already evolved well to support remote and mobile users; however recent labour shortages and inflationary pressures have caused companies to focus their technology and data strategies on automation and trading partner integration.

The Covid crisis has perhaps highlighted pain points in current processes, and the digital processes currently available would go a long way in alleviating those pain points whilst adopting the current industry best practices. "I am not sure that we have seen the full adoption of available technology and processes to such an extent that any drastic change would be seen post Covid," comments Clements. "The recovery phase may well see those businesses that are in a healthy enough state look to invest more heavily in their digital solutions, as well as their staff, to digitalise. Swiss-AS has services available for our customers to help them review their current adoption of AMOS and identify where they can leverage more from data and business."

## Intelligence-driven maintenance planning

Predictive maintenance takes the currently existing capacity for analysing past performance to an entirely new level that anticipates future trends and forecasts solutions. Sarmiento from TRAX says extraordinary amounts of aviation operator data are available – "the difficulty is in developing constructive algorithms that can transform statistics into dynamic and beneficial predictions." For example, Sarmiento indicates that the TRAX eMRO system has a robust component reliability tracking and reporting module that aids engineers, mechanics, and planners in their work. "Our plans are to build on this by taking advantage of new technologies such as machine learning, predictive

analytics, and virtual reality digital twins that extend our software's utility beyond historical reliability data and formulas. OEMs and operators are increasingly sharing data and incorporating more sensors, and developers would be remiss not to take advantage of this data to build a more dynamic and predictive software solution."

Big data has enabled AJW Technique to produce a series of solutions including in-house inventory modelling to identify optimum levels of stock to de-risk the operation, pricing algorithms to evaluate and manipulate repair pricing in line with internal and external benchmark factors and more, according to Rustom.

"We are also in the process of working with prospective industry partners to develop a predictive maintenance solution, for improved troubleshooting, component reliability, material provisioning, maintenance capacity and manpower planning thus further integrating the supply chain and delivering customer value." Rustom adds that whilst the industry has a lot to work through to ensure maturity and applicability in predictive maintenance, it will be a game-changer if airframers, component OEMs and MROs alike work together in a trifecta for success.

Big data analytics for processes like predictive maintenance are obviously critical for engine OEMs. At Pratt & Whitney digital capability is paramount to ensure the care of engines throughout their lifecycle. Data analytics and engine health management systems like ADEM™ (Advanced Diagnostics and Engine Monitoring) employ a suite of web-enabled software tools to provide expert analysis of engine health data for more than 8,000 engines in service. P&W say they can create customised, intelligent work scopes, provide early warning detection focused on preventative maintenance, and improve visibility into the overall health of the fleet. "We work to maximise each customer's specific engine performance and engine time on-wing, while maintaining predictable MRO spend," says Srinivasan.

Interestingly, the engine OEM recently

announced a collaboration with Teledyne Controls, a data delivery solutions provider, which will enhance engine health management services offered to Pratt & Whitney powered aircraft, focused on Teledyne Control's global customers.

Meanwhile, at Spairliners, they are leveraging on the insights provided by the past data of the extensive fleets they have been supporting over the years. "We employ machine learning solutions to forecast component removals and ensure accurate spare part availability as well as cost prediction," sates Mayer. He says developments in predictive maintenance are the result of operating data combined with shop reports and enriched with engineering expertise. As a service provider and with expertise in integrated component support, Spairliners are positioning as an important catalyst to this process.



Jonathan Mayer, Head of Innovation, Data and Quality, Spairliners

Airlines and MROs should continue to eliminate inefficiencies in their operations and it's clear that to achieve this, they need more data and better ways to evaluate it. "We are seeing data being captured through more avenues than ever before, especially where organisations are using mobile applications over traditional methods," concludes Purfurst from Rusada.



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# Q & A

In the  
hot seat...

INDUSTRY INTERVIEW

Matthias Düllmann

Chief Financial Officer  
SR Technics

**Matthias, what attracted you to this industry?**

I was always fascinated by the aviation industry as airplanes are a masterpiece of engineering and flying itself has always been something very special for me since my childhood. As an engine MRO, we play a crucial role within this industry to keep flying safe. This attracted me to this industry and to SR Technics.

**What does a typical day involve as CFO?**

CFOs are integral to the financial activity and oversight of an organisation. The primary role of a CFO is to help the company manage its assets, safeguard liquidity, and advise on how to make the best financial decisions – but it is not limited to that. CFOs must be very attentive to the market pulse and predict shifts, changes, and risks,



especially during these challenging and volatile times.

My typical day involves analysing financial data to contribute to growth and cost-efficiency to achieve our business goals. In addition, I also try to set aside enough time to work on future projects such as new licenses, new ventures, or M&A transactions.

I am challenged every day to be more productive, practical, and find new ways to make contributions to the company's success and its market position. Therefore, I think it is important for every CFO to stick to his or her work ethic, financial knowledge, and exchange with as many people as possible to be on track with current affairs in the world, use the ability to challenge the status quo, and strongly support all functions across the company.

### **What was the biggest impact of the Covid-19 pandemic on the business?**

As a result of the Covid-19 pandemic that hit the MRO market hard, the focus at SR Technics changed in March 2020 within days from growth into a survival mode. Airlines are the largest customer segment for SR Technics, and they have been hit the hardest. They have been conserving cash since the pandemic started by parking aircraft, cannibalising engines, and burning off green time. This led to an almost standstill of engine inductions and cash collection in the first months of the pandemic. Therefore, the key focus was to ensure sufficient liquidity to sustain the crisis, not knowing how long it will last. We managed to get additional financing in July 2020 which will be sufficient until after the crisis.

At the same time, we see the crisis as an opportunity and our primary objective is to emerge out of the crisis stronger than we entered. Consequently, SR Technics has substantially transformed into a company focused on engine maintenance and line maintenance in Switzerland. Obviously, we also applied all possible cost-saving measures such as short-time work, salary reductions of senior

management, and other personnel and non-personnel cost savings as most other players in the industry did too.

On the other hand, the crisis gave a boost to the company's digitalisation initiatives and created new opportunities to improve processes but also to collaborate better in fighting redundancy, complexity and striving for simplicity. I see this crisis as a chance to optimise our processes, but above all, for people to work together cross-functionally and end-to-end.

Besides keeping the company afloat, our main goal was certainly to keep the highly skilled professional workforce by means of using short-time work. Thanks to Swiss government support and our ability to adapt quickly to a new setting, we have been able to do it.

### **What does the road to recovery mean for SR Technics?**

The recovery of the MRO market is tightly linked to our customers.

We see that recovery in flying is still very regional. Airlines with large domestic markets have higher utilisation and will be out of green time sooner (USA, China) than other areas (Europe and Southeast Asia). Yet, we have seen an increase in leisure demand in regions where travel restrictions have been lifted. One should expect the other regions to catch up once their travel restrictions have eased. On the lessor front, we see engine exchanges that will provide lots of unserviceable engines sitting out there that we expect to be made serviceable when demand picks up again. Inevitably, some will be parted out, and used serviceable material will come available on the market which in turn will help drive the cost of future shop visits down. SR Technics is well-known for its large in-house piece part repair capabilities and we will continue with the investments into this line of business.

SR Technics monitors the market continuously and cautiously. As a lean MRO, we will assure the affordable cost structure and will be ready when the market recovers. Once the demand increases again, we can reduce short-time work and within days or weeks increase our capacity



SR Technics has substantially transformed into a company focused on engine maintenance.



again. We are all convinced that the aviation industry will return to growth very soon. Our key priority is to be ready when it happens. Right before the Covid-19 pandemic, we were about to conclude our capacity ramp-up for over 300 engines a year. So, I am proud to say, we will be ready for the market rebound.

**There has been a depressed market for used serviceable parts. How will this impact growth in your new components business, STRADE?**

As a part of our new focused company strategy 2021-2023, we launched a new component services brand STRADE powered by SR Technics in January 2021 as a response to clear market demand for a more flexible and dynamic approach to component support. STRADE operates as an independent unit inside SR Technics and provides component sale, lease, loan, and exchange services on all major aircraft platforms. It benefits from SR Technics' legacy in aircraft know-how, available assets, and product reliability to offer around the clock quality services to customers worldwide. As I see it, investing in a new component services brand is an essential step in the SR Technics' evolution in the MRO market.

**What opportunities are you seeing in the engine MRO market?**

To reap opportunities in the engine MRO market, SR Technics, as a customer-centric company, will constantly adjust its services to fulfil changing customers' demands in the best possible way. One example of this is our recently introduced Quick Turn Line (QTL). SR Technics

launched the QTL in September 2020 which covers the following services: hospital shop repairs, post-lease inspections, engine field assistance services, field non-destructive testing, engine change, and loan tooling. Engine repair is offered on the CFM International CFM56 and Pratt & Whitney PW4000 engines at the QTL in Zurich to mitigate operational disruptions without the need to schedule a heavy shop visit. With QTL services, customers can get prompt engine maintenance while optimising fleet readiness and reducing operating costs.

**What are your key priorities for the coming year?**

We are looking even further into the future and will start very soon implementing MRO services on the CFM International (CFM) LEAP-1B engine at our Zurich facility. Following the agreement with CFM, which was concluded at the end of 2020, we target the authority certification by Q1 2022. Relying on our strong relationship with CFM International and its parent companies GE Aviation and Safran Aircraft Engines, as well as on its extensive experience of more than 2,200 shop visits performed on CFM56 engines, we aim to establish initial capabilities on the LEAP-1B in less than a year. This comes as a natural and essentially necessary move forward for SR Technics besides the services already provided for line maintenance on the Boeing 737 MAX.

With our new engine focused strategy, the new license in the pipeline, and additionally our currently strong CFM56 and PW4000 business with large inhouse repair capabilities, I believe SR Technics will emerge stronger and more resilient from this crisis with new opportunities beforehand to grow and evolve as a world-leading engine MRO service provider.



## »»»»→ on the move



Sam Mendenhall

American Airlines Cargo has announced the appointment of **Sam Mendenhall** to Vice President, Operations. The appointment follows the retirement of former Operations leader **David Vance** after an impressive 34-year career at American Airlines. Mendenhall joins the cargo team with 22 years of experience at American, where he most recently led the organization responsible for all crew scheduling at the American Integrated Operations Center. In his more than five years leading crew scheduling, Mendenhall and his team worked constantly to ensure American's crew members were in the right place at the right time, as well as ensuring these crew members were taken care of while away from home.



Roberts Suhs

ILS (Inventory Locator Service), a leading digital marketplace and business intelligence services provider for the aviation industry, has announced the strategic hire of its new global sales leader, **Robert Suhs**. Suhs is a seasoned business leader with over 20 years of experience in guiding and managing high-growth sales teams in the commercial aerospace industry. At ILS, he will be responsible for the global sales strategy, execution, and revenue growth of the company. Prior to joining ILS, Suhs was the Vice President of Sales and Marketing at Magellan Aviation Group, a leading global supplier of aircraft components and services that specializes in engine leasing and trading, for more than nine years. Before joining Magellan, Rob served as a Sales Executive for Delta Air Lines TechOps Division and held various management positions at a number of aircraft maintenance, repair, and overhaul (MRO) companies including Honeywell Aerospace, Sermatech International and PAS Technologies.

Magma Aviation, the innovative air cargo solutions company, has appointed **Conor Brannigan**, an air cargo expert with over 15 years industry experience, as Deputy CEO. Brannigan joins the business following two years at Cargolux based in

Luxemburg in a senior role as Director Strategic Alliances and Market Development. Previous to that, he spent almost six years in Abu Dhabi, United Arab Emirates at Etihad, in a global cargo position. Brannigan's career in aviation began at Aer Lingus in 2006 where he progressed to Cargo Business Analyst. His experience prepares him well for his new role at Magma Aviation, based at the London Gatwick headquarters.



Brendan Sullivan

The International Air Transport Association (IATA) has appointed **Brendan Sullivan** as its Global Head of Cargo with immediate effect. Sullivan has worked in air cargo for 20 years, including spending 14 years at IATA. Since January, he has been acting Global Head of Cargo alongside his role as Head of Cargo Operations and E-Commerce. Sullivan began his career in air cargo at Air Canada in 2000, where he gained frontline operational experience and developed expertise in dangerous goods handling that facilitated his transition to the IATA in 2007.



Viktor Berta

ACC Aviation, the global aviation services business backed by YFM Equity Partners, is expanding the expertise it offers to airlines, lenders, and lessors with the addition of an in-house aviation finance specialist. **Viktor Berta** joins the group effective July 15, as Vice President of its newly created Aviation Finance Practice. The appointment broadens the scope of ACC Aviation's suite of consultancy services, led by **Rob Watts**, who also takes on an enhanced role as Director of Aviation Services. The development will see ACC Aviation extend its consultancy offer into four distinct pillars of activity – Aviation Finance Services / Asset Management / Consulting and coming this autumn, Technical Services. Berta, who will work between its U.K. and Dubai offices, brings a wealth of experience and contacts in aviation finance to the group, drawing on his eight years in aviation finance and investment management at DVB Bank and Erste Bank working from their Amsterdam and London offices.



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