

# MRO

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publications

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## Heavy Maintenance Europe

In focus:  
Trenchard Aviation  
Q&A:  
Aeroset

MRO News  
from around the world

People on the Move  
latest appointments



# AVI TRADER MRO

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## Opinion

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# Positive trends in a challenging market

The Europe MRO distribution market size is anticipated to reach USD 219.54 billion by 2025. It is projected to expand at a CAGR of 2.5% from 2019 to 2025. Increasing need for development, maintenance, and repair of industrial equipment and services for different industries is expected to drive regional growth.

The global recession of 2008-09 had a severe impact on almost every industrial sector in Europe. As a result, in the post-recession period most of the industrial sectors have reformed their operational activities to enhance their rate of investment.

One such activity is the increased spending on MRO services and equipment. In comparison to

increased capital investment by opting for new equipment and processes, increasing investments on MRO for repair of old and aged equipment is likely to be a profitable option. This in turn is anticipated to drive the MRO distribution market in the region during the forecast years.

The introduction of e-commerce platforms, which helps market players achieve higher productivity and offer them smooth access to target marketplaces, is the most imperative trend which is currently influencing the Europe MRO distribution market positively.

Editor

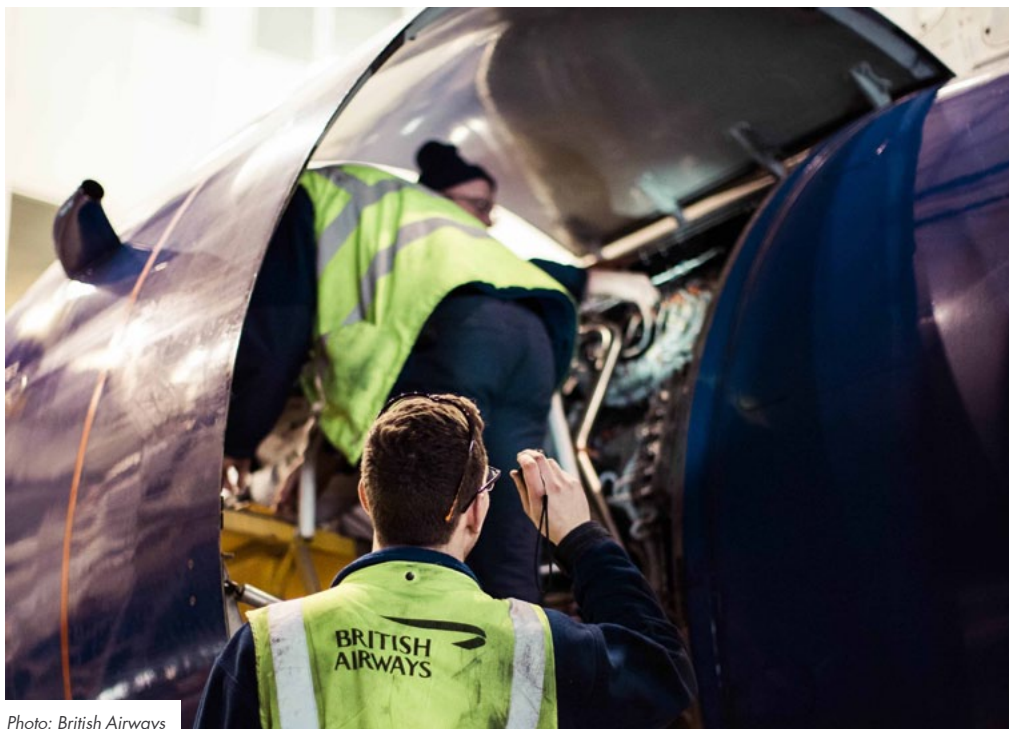
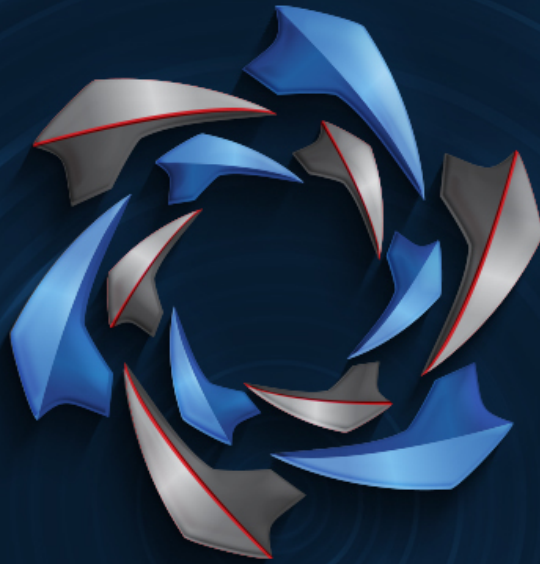


Photo: British Airways

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SR Technics and Liebherr Aerospace renew their partnership  
Photo: Liebherr Aerospace

### Liebherr-Aerospace signs new General Terms of Agreement with SR Technics

Liebherr-Aerospace and SR Technics have renewed their partnership with a five-year global service contract. The partners work hand in hand to support a fleet of more than 500 aircraft operated by airlines around the world, including Airbus A320 Family and A330/A340 Family aircraft as well as Embraer E-Jets. In the five-year global service agreement, Liebherr-Aerospace and SR Technics will provide services on air management systems and flight control systems to a global fleet of more than 500 aircraft; Liebherr from its facilities in Toulouse (France), Lindenberg (Germany) and its repair station in Singapore.

### Joramco signs new maintenance contracts with MNG Airlines and Ryanair

Joramco, the Amman based MRO and the engineering arm of Dubai Aerospace Enterprise (DAE), have signed a new base maintenance agreement with MNG Airlines, a Turkish cargo airline headquartered in Istanbul, to perform three C checks on two A300 and one A330 aircraft of the carrier's fleet, these checks are planned to commence between December 2019 and February 2020. Furthermore, Irish budget airline Ryanair has selected Joramco as its base maintenance provider. Joramco will perform heavy checks on Ryanair's Boeing 737 NG fleet. Ryanair has booked two parallel lines at Joramco's facility for the upcoming winter season, commencing November this year until the end of March 2020.

### StandardAero signs PW100/PT6A/JT15D support agreement with Carolina Aviation Technical Services

StandardAero has signed a Services Agreement with Carolina Aviation Technical Services (C.A.T.S), a Part 145 repair station based at Statesville Regional Airport (SVH) in North Carolina. The Agreement – which extends StandardAero's long-running relationship with C.A.T.S – covers the provision of main-

tenance, repair and overhaul (MRO) services for the Pratt & Whitney PT6A and PW100 turboprop engines and the JT15D turbofan. C.A.T.S is a certified maintenance center for a wide range of aircraft from various manufacturers, including Beechcraft, Cessna and Dornier, and an avionics dealership for Honeywell and FDS. The recently signed services agreement with StandardAero will allow C.A.T.S to ensure that its customers benefit from seamless engine MRO support, minimizing downtime while locking in competitive pricing. Commenting on the agreement, Peter Sistare, Owner of C.A.T.S, said: "We are pleased to be able to extend our relationship with StandardAero. Most importantly they provide the right services to assist us with our customers in the field."

### New passenger seats for Tayaran Jet

Bulgarian carrier Tayaran Jet and JHAS, the Italian design manufacturer of aircraft seating, have agreed on a partnership for the restyling of Tayaran Jet's cabin with innovative and customize seats. The development of economy class seats has been realized in synergy between the two companies, through studies, tests and detail analysis putting in the center the needs of passengers and structuring the seats to be Elegant, Refined and Exclusive in terms of Design, Comfort and Living Space. The result is an Economy Class seat for a new way of Air Travel, "AURORA 2.0".



"AURORA 2.0" seats for Tayaran Jet  
Photo: Jhas





CSAT modification project on Finnair's fleet of Airbus narrow-body aircraft  
Photo: CSAT

### Czech Airlines Technics finalizes cabin modification for Finnair

Czech Airlines Technics (CSAT) has successfully completed a two-year cabin modification and

Wi-Fi network installation project for Finnair's Airbus narrow-body aircraft. Finnair is one of CSAT's long-term Base Maintenance division clients. Throughout the course of the project, CSAT employees completed the cabin modi-

fication and connectivity installation on a total of 24 Finnair aircraft in Hangar F at Václav Havel Airport Prague. As a result, all aircraft have a new cabin configuration and layout and Finnair customers can access internet and Finnair's complimentary onboard Nordic Sky Portal during the flight. This was the industry's first connectivity retrofit with the aircraft manufacturer, Airbus. During the work performed in Prague, the aircraft underwent a modification of the cabin, called 'Spaceflex', consisting of the cabin reconstruction, increasing the number of passenger seats, and replacement of the galleys and lavatories. At the same time, CSAT workers had to reinforce the fuselage to install the satellite antenna and its cover on top of the fuselage and distribute cables throughout the aircraft, including the cockpit and passenger cabin. Subsequently, a wireless internet connection was launched and tested on board the aircraft. During the flight, the antenna on the fuselage receives a signal from the satellite, which is distributed to passengers' electronic devices via Wi-Fi access points located in several places around the cabin.

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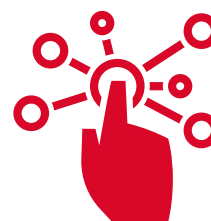
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Inflight's Christoffer Creutz and Spairliners' Benoît Rollier at MRO Europe  
Photo: Serena Parkin for Inflight

### Inflight MRO Services wins Spairliners contract for Embraer E-Jet component repair work

Inflight MRO-Services, part of the Inflight Group, has secured a new, long-term contract with Spairliners GmbH, the Lufthansa Technik/Air France Industries KLM Engineering & Maintenance JV business, to handle component repair work on the Embraer E-Jet 170 and 190 aircraft. The contract was signed during the MRO Europe Show in London. When work commences in 2020, Inflight will be supporting a wide range of E-Jet rotatable components for Spairliners' E-Jet customers, including difficult to transport and hazardous items. Work will be carried out at its dedicated components workshops at London Southend Airport. Inflight MRO Services has been increasingly active supporting E-Jet family components, supporting several customers ad hoc, including Flybe. It is a major shift for the business, which built its reputation as a specialist BAe 146 support center. With more BAe 146s moving overseas, Inflight has moved into more modern types, including the Airbus A320 and B737.

### DC Aviation performs overhaul of Airbus A320 Family aircraft

During several months of ground time, DC Aviation's Maintenance Center at Stuttgart Airport has overhauled the VVIP-version of an Airbus A320 Family aircraft, investing over 5,000 hours. One feature of the comprehensive maintenance and refurbishing work was

the modernization of the on-board entertainment system, including the installation of fully HD-capable cabling. Fitting the airplane with HD monitors, a new surround-sound system, and a WLAN with a media server brought the cabin technically up to date. The cabin was completely modernized, which included laying of modern durable non-textile (NTF) flooring. In addition to the cabin work, a ten-year maintenance check and a landing gear overhaul were performed. The ground time was also used to perform sensible structural repair work. In the past, DC Aviation has already performed complete cabin overhauls e.g. on the Legacy 650 and the Challenger 850 and

has acquired comprehensive experience with changing landing gear. It has been offering line and base maintenance services for various types of aircraft since 1999.

### LHT inks A380 main landing gear MRO license and asset agreement with Collins Aerospace

Collins Aerospace Systems and Lufthansa Technik have announced a first-of-its-kind licensing and asset agreement for Airbus A380 main landing gear Maintenance Repair and Overhaul (MRO) services. Under the agreement, which spans the life of the A380 program, Lufthansa Technik will be able to provide A380 main landing gear MRO services and access to assets supporting customer layover schedules. To help Lufthansa Technik develop MRO capabilities for the A380 main landing gear, Collins Aerospace will provide training, parts and proprietary repair procedures, including access to technical publications required to perform A380 main landing gear MRO services. Lufthansa Technik will offer asset management services through access to a collaboratively managed main landing gears pool of Collins Aerospace. "This agreement will provide A380 operators with more options for their main landing gear MRO services from high-quality repair centers," said Ajay Mahajan, president of Landing Systems at Collins Aerospace. "Lufthansa Technik and Collins Aerospace have enjoyed a long-standing, collaborative relationship and we look forward to continuing to work together to better meet the MRO needs of our customers moving forward."



Collins Aerospace and LHT sign A380 main landing gear MRO license and asset agreement  
Photo: LHT



Eaton and OEMServices to expand MRO business in Russia  
Photo: OEMServices

### Eaton signs agreement with OEMServices to expand MRO business in Russia

Power management company Eaton will provide maintenance, repair and overhaul services for components on Airbus and Boeing aircraft as part of a long-term agreement with OEMServices. The growth opportunity will expand Eaton's high-quality, cost-effective MRO services into new airline markets in Russia to benefit A320, A330, A340, B777 and B787 operators. As part of this long-term agreement, Eaton will perform repair services on a broad portfolio of air frame fuel and hydraulic components, engine fuel and sensing products, and electrical actuation products.

### Turkish Technic and Satair sign strategic General Terms Agreement

Turkish Technic and Satair have signed a strategic General Terms Agreement (GTA) to facilitate further business growth between the two entities. Under this agreement, Satair will support Turkish Technic with consumable and expendable spares (C&E) for the expanding Airbus aircraft fleet that is maintained by Turkish Technic. This unique agreement supports both Airbus standard hardware supplied from the Airbus warehouses in Hamburg and C&E material from Satair's global warehouses. This marks an important entry of Standard Hardware to the already established transactions of C&E material between the entities. With this tailor-made GTA, aircraft part numbers can be added and removed from the GTA in a dynamic manner to reflect real-time planning and forecast input. The flexibility of the GTA

provides a customized and unique platform to add products and Stock Keeping Units to the GTA while still allowing the general Terms & Conditions to remain in force. This helps both parties to maintain a very high degree of flexibility while securing a good service level from Satair towards Turkish Technic.

### STS Aviation Group purchases former MAEL hangar in Birmingham, England

Two weeks after acquiring Apple Aviation, STS Aviation Group (STS), an aviation solutions company, has finalized the purchase of a wide-body aircraft maintenance facility in Birmingham, England. The facility was formerly operated by Monarch Aircraft Engineering (MAEL) and put up for sale in March of 2019. It features 200,000 ft<sup>2</sup> of total space — including ramp — and has the capacity to service wide-body aircraft. In fact, the facility can house two wide-body aircraft or 10 narrow-

body aircraft at the same time. In addition to its size, the complex is home to several on-site component repair and back shops; making it a true nose-to-tail MRO service facility flush with vertical lift storage devices, a global reporting room and dozens of laptop mobility hubs.

### Embraer approves Jet Flight Service to expand support of Legacy 600/650 in Moscow, Russia

Jet Flight Service, based at Vnukovo International Airport, has been approved as an Embraer Authorized Service Center (EASC) to expand its support for Legacy 600/650 customers in Moscow, Russia. Jet Flight Service, which is certified by the European Union Aviation Safety Agency (EASA), may perform scheduled and non-scheduled maintenance, component and part exchange types of inspections at different levels of complexity for those aircraft platforms.

### TurbineAero Asia unveils new facility near Bangkok, Thailand

TurbineAero, a portfolio company of The Gores Group, has officially opened its new facility in Chonburi, just outside of Bangkok, Thailand. On Friday, September 27, 2019, TurbineAero unveiled the new 90,000 ft<sup>2</sup> facility, down the street from its former location. The new facility has maintenance, repair and overhaul capabilities for GTCP131-9A/-9B/-9C, 331-200/-350/-500, 85-129 and PW901A/C Auxiliary Power Units (APUs), APU components (piece parts) and accessories (LRUs), with plenty of room for growth. TurbineAero Asia's APU component repair product line holds all main part-145 certifications such as CAAT Thailand, FAA, EASA, CAAC China, JCAB Japan, Indonesia DGCA, ISO AS9110 and more.



Photo: TurbineAero officially opened its new facility in Thailand on September 27, 2019





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GAMECO was established in 1989. Today this 50/50 joint venture between China Southern Airlines and Hutchison Whampoa China (HKG) can provide over 6 mio manhours a year with its 6,000 highly skilled employees for China Southern and over fifty airline customers.



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To learn more about GAMECO, please visit [www.gameco.com.cn](http://www.gameco.com.cn).



Photo: MTU test center

### MTU Aero Engines opens new high-tech test center for engine parts in Munich

MTU Aero Engines has built a new test center for engine parts on its Munich premises, investing an amount of more than €25 million

(US\$27.5 million) in a new building and the most advanced test equipment. After two years of construction, the test center is now operational. With the new test center, MTU not only satisfies its current testing needs, the company has also set its sights on the future. Dr. Jörg

Henne, Senior Vice President Engineering and Technology, explained: "We've built up the testing capacities we need for our current engine programs – but not without bearing upcoming future requirements in mind." Plans are to test new materials, new designs and larger structures. Henne also talked about entirely new propulsion systems just emerging on the horizon: commercial engines of the next- and next-but-one generation which will have to meet even more stringent requirements. "Our ultimate goal is emission-free air traffic, and MTU is already pushing the development of innovative green propulsion technologies systematically forward," Henne said. An emerging program in the military segment is the Next European Fighter Engine, or NEFE for short. This propulsion system will be developed jointly by MTU and European partners, and its parts will be put through their paces in the new test center in Munich, according to Henne. The facility has been designed such that it can easily be expanded when needed, for example to add floor space or to accommodate new technologies.



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Ukraine International Airlines  
Photo: AirTeamImages

### SR Technics wins engine services contract with Ukraine International Airlines

MRO service provider SR Technics has been awarded a seven-year exclusive engine main-

tenance contract with Ukraine International Airlines (UIA). The agreement covers a minimum of 34 CFM56-7B shop visits. Meanwhile, work began on the first engine in the SR Technics engine shop in Zurich in August of this year. UIA and SR Technics have had a continu-

ous partnership since April 2017, when the airline signed a five-year contract for integrated component services with SR Technics for UIA's Boeing 737NG fleet. SR Technics was able to secure the new engine services contract with a competitive commercial offer.

### Barfield enters into agreement to support GSTE products in Europe

Barfield, a subsidiary of Air France Industries KLM Engineering & Maintenance (AFI KLM E&M) in the Americas, has signed an agreement allowing Falguyras to become Barfield authorized repair center in Europe. The agreement covers the repair and calibration of several GSTE products including Air Data/Pitot Static, and Turbine Temperature. The first agreement with Falguyras allowed Barfield to become the distributor of the French-based manufacturer in June 2018. Falguyras supplies and manufactures aircraft on-board equipment such as flight control and navigational equipment, electronic and motor control equipment.



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- A330
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Kenya Airways partners with Joramco for Heavy Maintenance Services  
Photo: Joramco

### Kenya Airways partners with Joramco for heavy maintenance services on B787 aircraft

Joramco, the Amman-based MRO and the engineering arm of Dubai Aerospace Enterprise (DAE), and Kenya Airways have signed a heavy maintenance agreement for the first time to perform OOP checks for six B787s from the carrier's fleet in addition to major modification tasks related to upgrading IFE wiring systems and Oxygen Module PSUs. Joramco successfully delivered five aircraft between May and June while work on the sixth aircraft began in September. Kenya Airways, a member of the Sky Team Alliance, is a leading African airline flying to 56 destinations worldwide, 43 of which are in Africa and carries over four million passengers annually. It continues to modernize its fleet with its 35 aircraft being some of the youngest in Africa.

### Spatial to manufacture Water Evacuation Trainer for Singapore Airlines

Spatial, a provider of cabin crew training simulators, is to manufacture a Water Evacuation Trainer for Singapore Airlines. With a B787 fuselage, the trainer will provide Singapore Airlines' cabin crew with the highest possible training standards in all Safety and Emergency Procedures (SEPs). Training will include door operation, cabin communications and aircraft systems familiarization, secure cockpit procedures, emergency equipment usage and evacuation, fire and smoke training, including evacuation directly into the adjacent pool. Simulated malfunctions and maintenance will be operated via an easy-to-use touchscreen Instructor Operator Station (IOS). To provide comprehensive training for a wide variety of different door types, the trainer will include replica B787, A350 and A380 doors

and refurbished B737 and B777 doors. Visual systems will be installed on all doors and synchronized with training scenarios to ensure a highly realistic training environment.

### Liebherr and ATR sign ATR42/72-600 global maintenance agreement

Liebherr-Aerospace and ATR have signed a ten-year agreement covering the supply of components, repairs and associated Pay-by-the-Hour services for the more than 300 ATR42/72-600 aircraft fleet. After two years of development, the new air management system, developed and manufactured by Liebherr-Aerospace, will enter into service next year on ATR's 42/72 aircraft family. The regional aircraft program will benefit from this highly reliable system as it generates and

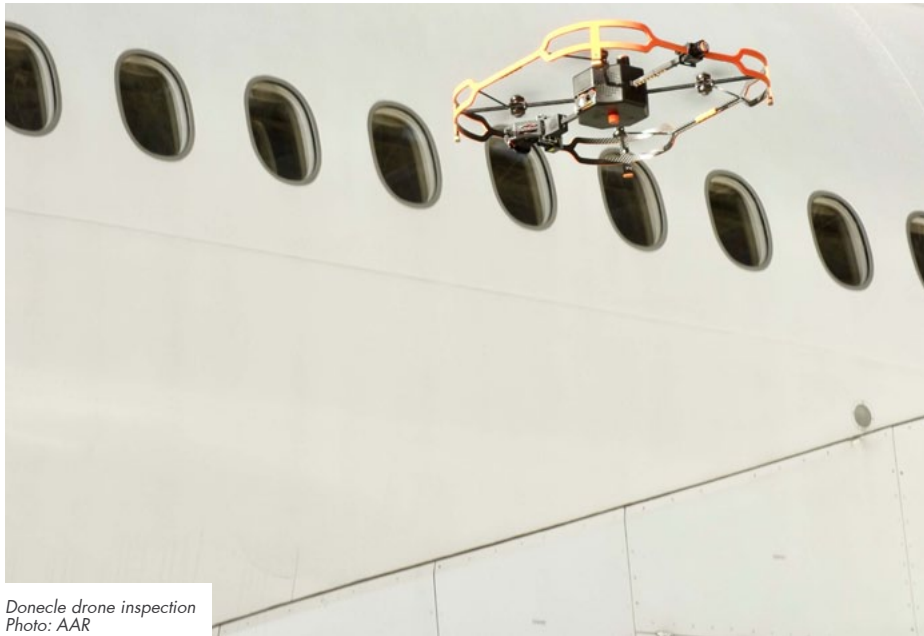
enhances on-board comfort for passengers and crew while substantially reducing operation costs. ATR extends its confidence for ten years by entrusting Liebherr-Aerospace with the comprehensive product support and services for its fleet managed through its Global Maintenance Agreement, as Liebherr-Aerospace will handle the maintenance services for ATR operators through a back-to-back contract. The support services will be performed by Liebherr-Aerospace's service stations in Toulouse (France), center of excellence for air management systems, and Liebherr-Aerospace's service stations in Singapore and Saline, Michigan (USA).

### SkyUp selects Acro's Series 3 Ultra seat

SkyUp Airlines has selected the Series 3 Ultra seat from Acro Aircraft Seating for eight of its aircraft, comprising six B737-800 and two B737-700 aircraft. SkyUp Airlines, the Ukrainian charter and low-cost airline, which began its flight program in 2018, is the latest airline to join Acro's expanding roster of customers. Acro's Series 3 Ultra seat will now feature on SkyUp's flights from Kiev, Ukraine to Tbilisi, Batumi, Erevan, Larnaca, Barcelona, Naples, Turin, Alicante, Paris, Nice, Sharjah, Praha, Tel-Aviv, Lviv and Kharkiv. Additional routes are scheduled for later in 2019 to Georgia, Cyprus, Italy, Spain, France, Israel, Armenia, Czech Republic and United Arab Emirates by direct flights. SkyUp's Series 3 Ultra seat offers exceptional comfort levels and features bespoke grey synthetic leather seat covers with SkyUp's signature orange colored stitching.



SkyUp selects Acro Series 3 Ultra seats  
Photo: Acro Aircraft Seating



Donecle drone inspection  
Photo: AAR

### AAR launches Donecle drone technology integration for MRO aircraft inspections

AAR has announced the integration of Donecle drone technology into its maintenance, repair and overhaul (MRO) operations. AAR's Miami MRO facility is the first in its global network to use the fully automated drone technology to drive operational and cost efficiencies, where the pilot phase has yielded increases in speed and precision. With laser positioning, the drone can safely perform end-to-end visual inspections of B737 and A320 aircraft in under an hour. AAR and Donecle have partnered on an initial 12-month technology agreement, and upon further assessment and results, will expand the platform to other MRO facilities. In compliance with Federal Aviation Administration (FAA) requirements, AAR performs manual aircraft inspections in addition to the drone inspections.

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Lufthansa Technik Malta  
Photo: LHT

### Lufthansa Technik Malta starts technical services on Airbus A350

Lufthansa Technik Malta has started to carry out technical services on the Airbus A350. A first aircraft, an Airbus A350-1000 from an undisclosed customer, received a cabin modification in September. The first A350-900 is expected to arrive in the next weeks for a C-check. So far, three international carriers, among them Air Mauritius, have signed MRO (maintenance, repair & overhaul) contracts for the A350 family with Lufthansa Technik Malta. Lufthansa Technik Malta has undertaken thorough preparations in infrastructure investment and staff qualification to be able to carry out overhaul work on the A350 family. The German Federal Aviation Office (LBA) certification for the A350-1000 was achieved in August 2019. This certification complements the approval for overhaul work on the Airbus A350-900, attained in 2018.

### Rolls-Royce and Volo Aero MRO sign ten-year T56 engine support agreement

Rolls-Royce and Volo Aero MRO have signed a ten-year agreement covering the support of T56 single engine piece part maintenance repair and overhaul services. With over 18,000 engines manufactured since 1953 and more than 230 million flight hours accumulated, the T56/501 engine continues to be the leader of large turboprop engines for both military and commercial use. They are maintained by the Rolls-Royce authorized MRO Support Network, providing affordable, reliable support solutions. The AMC Network includes nine approved, licensed maintenance cent-

ers around the globe. Volo Aero MRO is an FAA- and EASA-certified MRO based in Massachusetts, offering in excess of 50 individual repairs for the T56 engine and continues to develop additional repairs for the Authorized Maintenance Centre (AMC) and the Authorized Military Overhaul Facilities (AMOF) network to meet its requirements.

### C&L Aerospace purchases Beechjet business from Global Parts

C&L Aerospace has purchased the Beechjet 400 rotatable parts program from Global Parts. As part of the transaction, C&L has acquired

Global's entire Beechjet rotatable inventory. All parts from the program are now stocked in C&L's Bangor, ME warehouse. Parts from this purchase will bolster existing inventory and be used to support C&L's robust Beechjet support programs. Highlights from the inventory include pitch trim actuators, brakes, power supplies, and more. This inventory is inspected and has gone through a cataloguing process which includes photographing and barcoding the parts and corresponding documentation making purchases faster, easier and more transparent for customers.

### Airbase wins contract to manufacture seat covers for Acro

Airbase, part of Trenchard Aviation Group, has won the contract to manufacture Ultra-Leather™ seat covers for Acro, a leading innovator in aircraft seating. This contract has resulted from Acro's commission to provide new seats for Spirit Airlines, an American ultra-low-cost carrier headquartered in Miramar, Florida. Spirit Airlines is the seventh-largest commercial airline in the United States, operating scheduled flights throughout the United States and in the Caribbean, Mexico, Latin America, and South America. Airbase, located close to London Gatwick Airport, has over 20 years' experience of managing aircraft cabin interiors, including soft furnishings, carpets and dry cleaning. With its own cut and sew facilities on-site, the company's expertise covers the manufacture of all types of seat covers and curtains as well as flight deck seat covers, fire containment sacks and other cabin bags and warning streamers.

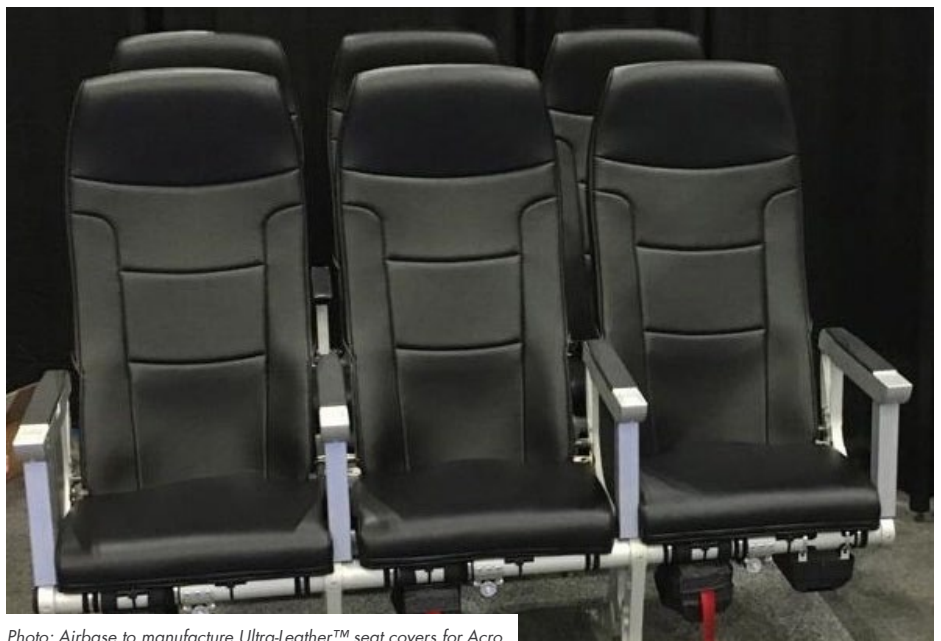


Photo: Airbase to manufacture Ultra-Leather™ seat covers for Acro





Jet Aviation ribbon-cutting ceremony in Teterboro, NJ  
Photo: Jet Aviation

### Jet Aviation opens new Teterboro hangar and renovated FBO

Jet Aviation has officially opened its new 40,000 ft<sup>2</sup> hangar and completely renovated FBO in Teterboro, NJ. Built to meet growing demand for long-range business jets, the new hangar can accommodate most large aircraft. The construction is part of Jet Aviation's efforts to expand and improve its global FBO network of 35 locations. The company is investing heavily to ensure its facilities are designed and equipped to meet all the business aviation needs of its global customers. Jet Aviation invested more than US\$25 million in its Teterboro facility, including a complete renovation of its FBO and construction of a new state-of-the-art, 40,000 ft<sup>2</sup> hangar — equipped with 30-foot doors — that can accommodate aircraft as large as the Gulfstream 650s. The FBO incorporates new standard design elements that will ensure customers have a consistent experience when visiting any of the company's sites worldwide. Guests and crew can relax and enjoy the site's many amenities, including dedicated passenger and crew lounges, flight planning room, executive conference rooms, business center, health/fitness spa and on-site U.S. customs services.

### StandardAero signs multi-year PW127M support agreement with Silver Airways

StandardAero has signed an exclusive long-term contract with Fort Lauderdale-based Silver Airways for Pratt & Whitney PW127M engine support. Silver Airways is America's leading independent regional airline and StandardAero will provide it with comprehensive engine services in support of its fleet of brand-new ATR -600 regional turboprops, including responsive overhaul-level support

from StandardAero's Summerside, PE, Canada location. In addition, Silver Airways will benefit from access to StandardAero's North American network of service centers and mobile repair teams (MRTs). StandardAero will also be supporting the airline with engine condition trend monitoring (ECTM) services, which provide proactive real-time engine maintenance recommendations, thereby maximizing the operational availability of Silver's fleet. Silver Airways is the U.S. launch customer for the ATR -600 series, and earlier this year the airline became the first U.S. carrier to take delivery of an ATR 42-600. Silver Airways plans to introduce up to 50 ATR -600 series aircraft, including an initial order for 20 ATR 42-600 aircraft leased from Nordic Aviation Capital. Silver Airways has up-gauged certain deliveries to the larger 70-seat ATR 72-600. And the new ATR -600 series fleet will allow it to expand service for travelers on existing routes in Florida and the Southeastern United States, the Bahamas and other islands



AW 101 Multi-Role Helicopter  
Photo: Leonardo

in the Caribbean.

### Leonardo and Olmedo join forces for development of first medical aid of the future

Leonardo and Olmedo - a leading European company for the transformation and preparation of vehicles for healthcare use - have announced the signing of a collaboration agreement aimed at the development of technologies and equipment for rotary-wing and motor vehicles globally that conduct rescue missions. The aim of the agreement is to improve the times and effectiveness of emergency medical interventions carried out in a joint mode through the use of helicopters and ambulances in a seamless environment. The agreement between Leonardo and Olmedo sees a collaborative approach that will prioritize the creation of an R&D structure comprising of a joint research team. The research team will consider the development and prototyping of new components and universal solutions which will be designed for contemporary and specialist use on both helicopters and ambulances. In addition to data-sharing platforms which will enable the real-time interface of the patient's vital signs during a rescue mission: from the place of intervention to the hospital and during transfers. The project will create important synergies – thanks to Leonardo's historical expertise in the field of air ambulance development (EMS – Emergency Medical Services) and in relation to helicopters for Search and Rescue (SAR) missions in the global and maritime environment, and thanks to the experience of the medical "Ambulance Division" of the Olmedo Group, a leader in the sector since 1951.



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Airbus A320neo  
Photo: Airbus/A. Pecchi

## Airbus inaugurates new A320 structure assembly line in Hamburg

Airbus has inaugurated its highly automated fuselage structure assembly line for A320 Family aircraft in Hamburg, showcasing an evolution in Airbus' industrial production system. With a special focus on manufacturing longer sections for the A321LR, the new facility features 20 robots, a new logistics concept, automated positioning by laser measurement as well as a digital data acquisition system. These will further support Airbus' drive to improve both quality and efficiency while bringing an enhanced level of digitalization to its industrial production system. For the initial section assembly, Airbus is using a modular, lightweight automated system, called "Flex-track", with eight robots drilling and countersinking 1,100 to 2,400 holes per longitudinal joint. In the next production step, 12 robots, each operating on seven axes, combine the center and aft-fuselage-sections with the tail to form one major component, drilling, countersinking, sealing and inserting 3,000 rivets per orbital joint. Besides the use of robots, Airbus is also implementing new methods and technologies in material and parts logistics to optimize production, improve ergonomics and shorten lead times. This includes the separation of logistics and production levels, demand-oriented material replenishment as well as the use of autonomous guided vehicles. The Hamburg structure assembly facility is responsible for joining single fuselage shells into sections, as well as final assembly of single sections to aircraft fuselages. Aircraft parts are equipped with electrical and mechanical systems before eventually being delivered to the final assembly lines in France, Germany, China and the U.S.

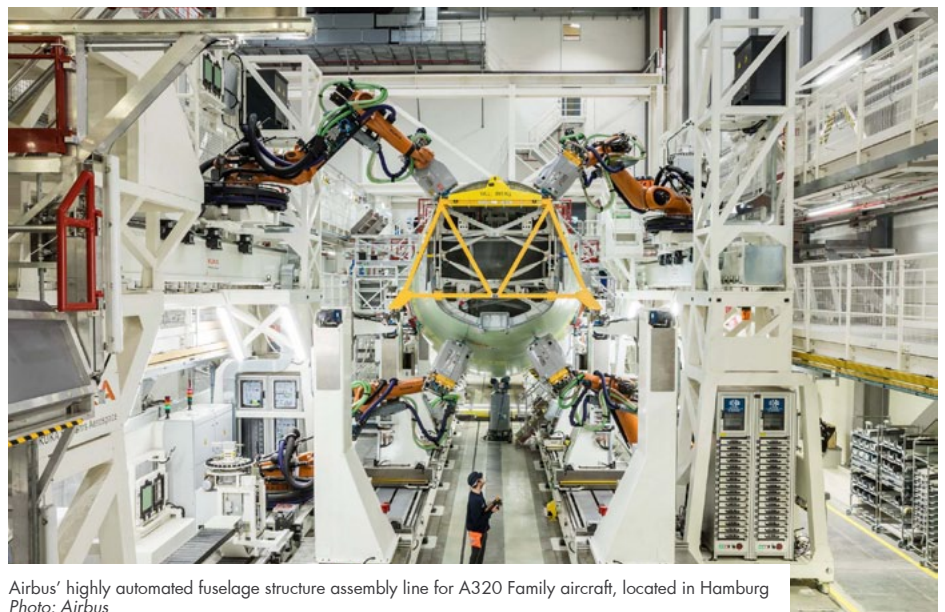
## FACC secures production order from Bombardier Belfast

FACC has received an order from Bombardier Belfast and is thus successfully expanding its customer portfolio: The company has placed an order with FACC for the production of thrust reverser trans cowl components for the A320neo aircraft family. With this order, FACC has now extended its long-standing cooperation with Bombardier in the areas of Cabin Interiors and Aerostructures including engine nacelle components. FACC was able to demonstrate to Bombardier that it has outstanding expertise in component design for manufacture as well as ultra-modern production facilities. The project marks FACC's first collaboration with Bombardier Belfast. "This new order is of great strategic importance for FACC and for the Engines & Nacelles division in particular, as the cooperation with Bombardier Belfast is an expansion of our customer and product portfolio. Through its cooperation with Bombardier Belfast, FACC is further expanding its market share on the A320 aircraft family and benefits from the global success of the aircraft," explained Günter Nelböck, Vice President Engines & Nacelle of FACC. "Stable growth of the FACC Engines & Nacelles division and the creation of secure long-term jobs in the region are thus guaranteed."

## Ethiopian Airlines signs repair management contract with AJW Group

AJW Group has extended its long-term relationship with Ethiopian Airlines with a contract

for the maintenance and repair of parts. The contract will be carried out in collaboration with Ethiopian Airlines for the delivery of their B737NG Component MRO services and will include repairs at AJW Technique, AJW Group's maintenance facility in Montreal. Ethiopian Airlines is the flag carrier of Ethiopia and is wholly owned by the Ethiopian government. Its headquarters are at Bole International Airport in Addis Ababa from which it serves a network of 125 destinations and operates a fleet of 120 aircraft. The airline has been a long-term customer of AJW's trading business, parts sales and support services, and this new partnership marks an extension to the current offering.



Airbus' highly automated fuselage structure assembly line for A320 Family aircraft, located in Hamburg  
Photo: Airbus





XEOS the joint venture between GE Aviation and LHT officially opened its doors  
Photo: LHT

### Grand opening of XEOS – aircraft engine service center

On September 30, XEOS, the new aircraft engine service center located in Środa Śląska near Wrocław (Poland), celebrated its official opening. The company is a joint venture of Lufthansa Technik (51%) and GE Aviation (49%) and is a service center for GENx-2B and GE9X engines. It was built in a record time of 16 months and the first commercial engine was accepted for repair in April 2019. At the end of 2019 a total of about 20 engines will have been inducted for service here. After reaching its maturity in 2023 the plant will repair more than 200 engines per year. The joint venture partners have invested about PLN 1 billion (US\$250 million) to construct the facility and its own training center from scratch, along with a test cell which is still in the ongoing second construction phase of the project. Ultimately, the plant will employ about 600 people. At the moment the XEOS team consists of 300 people: aircraft engine mechanics, engineers, logistics specialists and administration staff. They come not only from Środa Śląska and Lower Silesia, but from all over the world – with 12 nationalities in total.

### FAA approves AerTrak for Boeing 777-200 series aircraft

The Federal Aviation Administration (FAA) has issued Supplemental Type Certificate (STC) No. ST04184NY for installation of AerSale®'s AerTrak® system on Boeing 777-200 series aircraft to comply with the Automatic Dependent Surveillance-Broadcast (ADS-B) Operations rule, a critical part of the agency's Next Generation Air Transportation System (NextGen). Beginning January 1, 2020, the

FAA has mandated that aircraft operating in airspace defined by 14 CFR § 91.225 must be equipped with an ADS-B Out system that meets the minimum performance requirements of 14 CFR § 91.227. The FAA previously approved AerTrak for Boeing 737 Classic and NG series aircraft (ST04009NY) and Boeing 757-200 series aircraft (ST04011NY).

### AAR expands component repair services with BAE Systems

AAR, a leading provider of aviation services to commercial airlines and governments worldwide, has expanded its component repair and

overhaul services with BAE Systems Regional Aircraft to include a wider range of components for its regional jet support programs. AAR began executing on the component repair contract in January 2019, and following strong operational performance, signed a service expansion agreement in September to cover additional components. The scope of services focuses on BAE Systems' out-of-production regional aircraft, utilizing AAR's proven expertise in legacy platform component repair. The services for the BAE Systems agreement are performed out of AAR's component repair facility in Amsterdam.

### All Nippon Airways signs for Safran's nacelle support on A380 aircraft

Safran Nacelles has signed a NacelleLife™ support contract with All Nippon Airways covering the carrier's three Airbus A380 aircraft. This ten-year agreement will allow All Nippon Airways (ANA) to benefit from OEM-guaranteed maintenance, repair and overhaul (MRO) solutions based on in-service experience at Safran Nacelles repair stations. The airline will also have access to Safran Nacelles' shared pool of spare parts and components, as well as the positioning of a spare nacelle air inlet at Honolulu. Providing the spare air inlet ensures on-site availability at ANA's destination in the mid-Pacific Ocean. ANA is Japan's largest airline and the latest A380 operator, receiving its first two of three aircraft earlier this year for use on the popular route between Tokyo and Honolulu in the U.S. Hawaiian Islands.



ANA and Safran Nacelles sign NacelleLife support agreement  
Photo: Safran Nacelles





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China Cargo Airlines  
Photo: LHT

### China Cargo Airlines and LHT sign component support agreement for Boeing 747 freighters

China Cargo Airlines has entrusted Lufthansa Technik with the component support for three Boeing 747-400 freighter aircraft. The five-year Total Component Support (TCS®) agreement is the first major collaboration between the two companies – and the first TCS® contract with a direct service provision to a Chinese customer. Lufthansa Technik's Total Component Support offers operators optimal component availability without the task of setting up and maintaining their own spare parts inventories. China Cargo Airlines will benefit from a unique pooling concept which guarantees 100%-reliable delivery at a pre-determined service level and resulting lower operating costs, especially through economies of scale. The agreement with the all-cargo airline comprises 427 part numbers.

### Jetaire receives AS9100 Certification

Jetaire has fulfilled the requirements and met the standards for certification to AS9100, the well-recognized International Quality Management System for the Aviation, Space and Defense industry. Certification to AS9100 includes certification to ISO 9001, plus additional aerospace quality and processes requirements. "We have always followed stringent procedures for our manufacturing and related activities to ensure the highest levels of quality, safety and reliability," said Mike Williams, President of Jetaire. "Completing the review process and receiving registration to AS9100 certification demonstrates to the marketplace, as well as industry regulatory agencies, that Jetaire maintains a comprehensive system of monitoring its processes and procedures to ensure consistent adherence to industry-best

practices and quality management systems." AS9100 is a widely adopted and standardized quality management system (QMS) for the aerospace industry. This standard is accepted worldwide, and the standards are identical across the globe. Sourcing from an AS9100-certified organization offers many benefits. It demonstrates that the company has a world-class QMS and that its products and services will meet clients' requirements.

### CAVU Aerospace acquires two Boeing 747-400 aircraft

CAVU Aerospace has acquired two Boeing ex-United Airlines 747-400 aircraft, N104UA MSN 26902 and N116UA MSN 26908, for dismantling, which has already begun. "We are committed to increasing value by deliv-

ering quality material to the aftermarket with accurate documentation," said CAVU Aerospace Founding Partner, Ken Kocalski. He continued, "the acquisition of these aircraft enhances our material service offering to continue to support the 747 market." Once material is removed from the aircraft it will be inspected on-site and will enter into the CAVUSmartTags™ removal tag system. This assures that documentation is accurate and allows for real-time visibility of the assets. After repair and overhaul, the material will be available to end users on an exchange as well as outright basis. In the very near future, CAVU Aerospace will increase its offering with the opening of its CAVU Component Repair Facility in Mesa, Arizona.

### Liebherr-Aerospace to overhaul landing gear systems for Fuji Dream Airlines

Liebherr-Aerospace has signed a long-term service agreement in Japan: The Original Equipment Manufacturer will cover the overhaul of the landing gear systems of the 10 Embraer E170-family aircraft from Fuji Dream Airlines (FDA). Fuji Dream Airlines, with its main bases in Shizuoka and Nagoya, is an independent regional Japanese carrier who started its operations in July 2009. Today it offers daily flights to 17 domestic destinations in Japan. In order to safeguard continuous operation of its Embraer E170 fleet, Fuji Dream and Liebherr-Aerospace have recently reached an agreement covering the overhaul of the main and nose landing gear systems of the airline's Embraer E-Jet E170-family fleet.



Fuji Dream Airlines and Liebherr-Aerospace sign long-term service agreement  
Photo: Liebherr-Aerospace





Photo: Delta TechOps and ORIX sign five-year maintenance contract

### Delta TechOps and ORIX Aviation Systems sign major engine maintenance contract

Delta TechOps, the maintenance, repair and overhaul (MRO) division of Delta Air Lines, has signed a five-year Maintenance Services Agreement with aircraft leasing ORIX Aviation Systems (ORIX Aviation). The agreement will cover the support of CFM56-5B and CFM56-7B aircraft engines. As both an operator of, and MRO for CFM56-5B and -7B engines, Delta TechOps is uniquely qualified to provide maintenance services to ORIX. Delta TechOps has been maintaining CFM56 engines for many years and will be able to pass along the same operational reliability and expertise to this globally established lessor.

### StandardAero delivers first GE90-115 fan case module from Cincinnati component repair facility

StandardAero Component Services, located in Cincinnati, Ohio, has shipped its first GE90-115 engine fan case module (FCM) unit for one of its airline customers. The GE90-115 FCM is one of the largest aircraft engine components in the industry and the GE90-115 is one of the world's largest jet engines, powering Boeing 777 aircraft. An appointed team from StandardAero visited the customer's European facilities in May of this year to review the repair process of similar FCMs. After the review, the team of technicians returned to Cincinnati to design, build and order all tooling and fixtures needed to support the repair process. The team then worked with the local FAA office to add the module repair work scope to StandardAero's Cincinnati capability list. StandardAero then performed 100% of all the disassembly, inspections, repairs and assembly and shipped its first GE90-115 FCM 15 days ahead of the customer-requested date.

### Vistara selects Airbus' FHS-TSP solution to maintain A320 fleet

Vistara, India's full-service carrier and a joint venture of Tata Sons and Singapore Airlines, has signed a long-term contract to partner with Airbus for their Flight Hour Services – Tailored Support Package (FHS-TSP). The contract will cover engineering and maintenance for 62 aircraft, including 23 existing ones. The FHS-TSP contract provides integrated and guaranteed services ranging from the supply and repair of components to the manufacturer's unique Fleet Technical Management service. An on-site Airbus team will support the daily maintenance activities, including spares, warehousing and engineering to ensure the highest standards of aircraft technical dispatch and operations. Under the agreement, Airbus will offer its expertise in the areas of maintenance, engineering, reliability and supply chain management. Airbus will ensure a) timely availability of spare parts b) maintenance planning c) compliance with airworthi-

ness advisories as well as technical records on all aircraft.

### TAM presents weight-saving SAAB 340 Cargo Conversion Generation II

Täby Air Maintenance, TAM, has unveiled the Saab 340 Cargo Conversion Generation II, a thorough upgrade of its well-known Cargo Conversion Programme. With about a dozen aircraft converted over the last few years, the Saab 340 Cargo Conversion Programme brings extended life and new commercial opportunities for this popular regional airliner. The new Cargo Conversion Programme has a focus on weight saving, allowing for increased payload and fuel. Thanks to the extensive use of carbon fiber paneling, the main cargo compartment has been redesigned, and the Generation II Cargo Conversion Programme comprises a number of refining upgrades, such as: enlarged cargo bays through reducing the number of nets installed in five instead of earlier eight positions, meaning easier loading and the possibility to load larger cargo units, as well as reduction of aircraft basic empty weight, allowing for more payload. New carbon fiber window blanks further reduce weight compared to previous aluminum window blanks and, overall, total savings on the aircraft's basic empty weight amounts up to 400 lbs. (180 kg). The above upgrades will be standard on coming cargo conversions with most of them available for already converted aircraft with a Service Bulletin. The upgrades are based on operational experience as well as customer requirements to further develop Tam's well-proven SAAB 340A & B cargo conversion STC.



Täby Air Maintenance AB (TAM) hangar  
Photo: TAM

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Photo: ©Lufthansa Technik

### Lufthansa Technik Component Services further expands capabilities

Lufthansa Technik Component Services (LTCS) in Tulsa / Oklahoma recently received the approval of the Civil Aviation Administration of China (CAAC). Additionally, LTCS has become the 33rd design department of Lufthansa Technik's EASA 21/J Design Organization (DO) and the first one in the Americas. The DO status allows LTCS to create its own approved data, which differentiates the company from many other repair stations. This is a big step forward in developing further repair methods to improve the component services of the company. Customers can benefit from shorter turnaround times, reliability improvements, and from overcoming material obsolescence. LTCS is now certified by the FAA, the EASA and the CAAC. Today, more than 680 employees are working at its 11 locations throughout North, Central and South America. The company offers a comprehensive bandwidth of Maintenance, Repair and Overhaul services for aircraft components. The maintenance of commercial aircraft components encompasses a wide range of services from repairs of single components all the way to a complete material management system with access to Lufthansa Technik's comprehensive component pool.

### StandardAero expands Hillsboro, Ohio component repair facility

StandardAero Component Services has officially opened the company's 30,000 ft<sup>2</sup> expansion of its Hillsboro, Ohio, engine component manufacturing and engine component repair facility. The additional working space and capital improvements included the building and additional equipment to support aerospace engine low-pressure turbine vane manufacturing. The expansion also provides additional space for further growth. Kerry O'Sullivan, Chief Operating Officer of StandardAero, and Rick Stine, President of

StandardAero Components, Helicopters & Accessories, joined Mark Greene, Vice President & General Manager of the company's Hillsboro facility, his leadership team and employees to dedicate the new expansion on September 20. The Hillsboro location expansion completes StandardAero's current plans for new building and expansion investments, which have also occurred at its Cincinnati, Miami and Kansas City locations over the last 18 months.

### Honeywell makes aviation history with new production milestones

Honeywell has reached two major milestones in the production of auxiliary power units (APUs) for aircraft — rolling out its 100,000th overall and the 15,000th of its most popular variant flying today, the 131-9 model. APUs provide power to tens of thousands of aircraft in the skies today. Numerous commercial and military platforms have relied on Honeywell

APUs to start their main engines and provide additional power to other important systems. Honeywell's first APU took to the skies in 1950, with more than 36,000 in service today across more than 150 regional, executive, commercial and military applications, including both fixed-wing and rotary-wing aircraft.

### Austrian Airlines using Donecle's automated inspection drone

Donecle has signed on Austrian Airlines, a member of the Lufthansa Group, for its automated drone inspection solution. Donecle is excited to partner with Austrian Airlines to help the airline optimize its maintenance process by reducing the time taken for an aircraft inspection while increasing reliability, safety and traceability of airframe checks. Donecle not only provides an automated drone which scans the complete external surface of the aircraft, but also delivers analysis software which assists the inspector to visualize and detect defects on the images, evaluate paint quality or check regulatory markings. All images are stored on a secure cloud platform to build a digital history of the aircraft and improve traceability over time, contributing to a paperless process. A technical partnership was also agreed to work on the lightning strike use case. With the current traditional manual process, inspecting an aircraft after a lightning takes several hours to check for potential damage. With Donecle's solution, Austrian expects to considerably reduce this long inspection time down to two hours, having a significant impact on AOG costs and aircraft availability to better serve its passengers.



Drone inspection on Austrian Airlines' aircraft  
Photo: Donecle



Photo: Textron has opened a new parts warehouse in Australia

### Textron Aviation opens new parts facility in Australia

Textron Aviation has opened an aircraft parts warehouse in Australia to support its fleet of business jets, turboprops and piston aircraft. The parts warehouse will be co-located at Essendon Fields Airport with Premier Aviation Maintenance, a Textron Aviation Authorized Service Facility. "Adding this new parts facility to Textron Aviation's support capabilities increases its level of customer service for Beechcraft, Cessna and Hawker aircraft in the region," said Paul Montauban, managing director of Premier Aviation. "Customer Service is why our customers come to us, so providing spare parts delivery – shipped the same day in most instances – is another way to ensure comprehensive support." The new Australia facility follows the recent expansion of Textron Aviation's Singapore parts warehouse to better serve customers in the Asia-Pacific region.

### Asiana Airlines awards PW4000 maintenance contract to SR Technics

MRO service provider SR Technics has been awarded an exclusive five-year engine maintenance contract by Asiana Airlines effective September 1, 2019. The new contract with Asiana Airlines, South Korea's second-largest carrier, brings SR Technics an important new customer in the region. The MRO's Engine Services business unit will perform more than 50 Pratt & Whitney PW4000 shop visits for their A330-300 fleet over the period. All work will be performed at the SR Technics engine shop in Zurich.

### S7 Technics to retrofit Wi-Fi modules into aircraft

S7 Technics has added the installation of Wi-Fi modules to its capability menu of aircraft services. The maintenance provider has entered a new developing market to meet the growing needs of airlines in upgrading their aircraft with internet access. In the course of preparation for the first project that was launched with one of its strategic customers last year, specialists from Moscow's S7 Technics Domodedovo airport base visited the Czech Republic facilities of JOB AIR Technic, which has extensive expertise in such modifications. Having learned from the experience of their Czech counterparts, S7 Technics specialists, together with a project developer organization, have installed Wi-Fi modules on several narrow-body aircraft in Aeroflot's fleet. The retrofitting is divided into two stages: firstly, modules for distributing information from the on-board server and all necessary wiring are installed, then, secondly, the aircraft are equipped with external internet communication modules to connect to passengers' personal devices. From March of last year until September 2019, 34 Airbus A320s have undergone the first stage of retrofitting and S7 Technics specialists are now planning to carry out the second retrofitting stage on 26 Aeroflot aircraft during 2020.

### PWI names KADEX Aero Supply as Canadian distributor

PWI Inc. of Wichita, Kansas USA has released that KADEX Aero Supply, headquartered in

Peterborough, Ontario, Canada has become the exclusive distributor of PWI products throughout all Canada. PWI and KADEX have worked together for years, with KADEX demonstrating a consistent track record of outstanding customer service. KADEX Aero will continue to develop their own aviation business, while distributing PWI products to aviation dealers countrywide. KADEX Aero currently distributes several important aviation product lines in Canada from facilities in Calgary, Alberta and Peterborough, Ontario. KADEX will develop the PWI dealer network, supporting them with demonstrated expertise in product knowledge and meeting customer needs.

### Skyways Technics A/S acquires CRJ-200 for teardown

Skyways Technics A/S, the Danish regional aircraft MRO specialist for heavy maintenance and spares support services for ATR and CRJ aircraft, has finalized the acquisition of CRJ-200, MSN 7591, along with two additional CF34 engines. Teardown will be carried out at Skyways facilities in Sønderborg, Denmark, starting November 2019. The resulting spares and major components from this project will be positioned in Skyways Technics' recently established warehouse in Miami, Florida, in order to serve the Americas market.

### Werner Aero Services acquires Boeing 737-800

Werner Aero Services has acquired a Boeing 737-800, MSN 28221. The aircraft has entered the disassembly process and components will shortly become available to support Werner's B737 customer base worldwide. The spare parts will be used to supplement Werner Aero's asset management programs. "We are expanding our Boeing platforms to support airlines worldwide and are in the process of acquiring additional airplanes. We see great demands from our 737NG airline customers for the various types of support we provide, including spare parts and engines," said Mike Cazaz, CEO of Werner Aero Services.





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### Astronics acquires Diagnosys Test Systems

Astronics Corporation, a leading provider of advanced technologies for the global aerospace, defense, and other mission-critical industries, has acquired the primary operating subsidiaries from mass transit and defense market test solution provider, Diagnosys Test Systems Limited (Diagnosys). Diagnosys is a developer and manufacturer of comprehensive automated test equipment (ATE) providing test, support, and repair of high-value electronics, electro-mechanical, pneumatic and printed circuit boards focused on the global mass transit and defense markets. Astronics has acquired 100% of the equity of the three primary operating subsidiaries of Diagnosys, which are Diagnosys Holdings, Inc., Diagnosys Ferndown Limited and Diagnosys Electronics (I) Private Limited, for US\$7 million in cash. The terms of the acquisition allow for a potential earn-out of up to an additional US\$13 million over the next three years based on achievement of new order levels of over US\$70 million during that period.

structuring charge for severance costs related to implementing a new operating model. The charges related to those two items were partially offset by a net benefit of US\$32 million in other special items. The company anticipates the majority of the restructuring costs associated with the new operating model will be paid in cash in the fourth quarter 2019 with the remainder in the first quarter 2020. The new operating model is expected to result in annual savings of approximately US\$60 million in operating costs beginning in the second quarter of 2020. Excluding the impact of special items, third-quarter 2019 adjusted net loss was US\$82 million compared with a second-quarter 2019 adjusted net loss of US\$2 million. In the third quarter, Alcoa reported adjusted EBITDA excluding special items of US\$388 million, down US\$67 million from the prior quarter, primarily due to lower alumina pricing that was partially offset by a higher alumina sales volume and lower production costs. Alcoa reported third-quarter revenue of US\$2.6 billion, down 5% sequentially due primarily to lower alumina prices. Alcoa ended the quarter with cash on hand of US\$841 million and debt of US\$1.8 billion, for net debt of US\$965 million.

### Alcoa posts third-quarter net loss of US\$221 million

Alcoa has reported a net loss of US\$221 million for the third quarter of 2019, compared with a net loss of US\$402 million in the second quarter of 2019. The results include US\$139 million of special items, including US\$134 million in charges associated with the divestiture of the Avilés and La Coruña facilities in Spain, and a US\$37 million re-

### ST Engineering completes acquisition of Newtec Group NV

Singapore Technologies Engineering (ST Engineering) has announced that further to its announcement made on March 27, 2019, its subsidiary Singapore Technologies Engineering (Europe) has completed the acquisition of a 100% ownership in Newtec Group NV (Newtec) fol-



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lowing the fulfilment of completion conditions, including the receipt of applicable regulatory approvals. This Newtec acquisition, together with the recent acquisition of Glowlink Communications Technology, which possesses advanced satellite communications anti-jamming technology, will enable ST Engineering to harness their unique capabilities to create a highly differentiated global satcom business group. ST Engineering is now in a stronger position to lead in innovation and the transformation of the satcom industry to enable Smart Cities globally. To drive higher brand visibility, Newtec will be renamed as ST Engineering iDirect (Europe) NV.

### SGS acquires majority stake in ARGUS International

SGS, the certification, verification, and inspection company, has acquired a majority stake in ARGUS International. The acquisition aims to strengthen SGS' aviation auditing and consulting services and increase market penetration through the organizations leveraged synergies. "ARGUS is a globally recognized brand name in the airline, business aviation, fixed-wing, and rotary engine markets. Its broad client base and international activities will help SGS grow and keep pace with the increasing global demand of air traffic and safety," said Frankie Ng, CEO of SGS. ARGUS International, PRISM, and ARGUS PROS will continue to operate as distinctive businesses within SGS' Certification and Business Enhancement (CBE) business unit.

### Weak pound allows Advent International to win US\$5bn battle for U.K.'s Cobham

With the Brexit fiasco primarily responsible for a weak pound, U.S. private equity firm Advent International has taken advantage of the situation and snapped up Cobham, the U.K. firm renowned for its pioneering work on air-to-air refueling, for US\$5 billion. The price agreed was at a premium of 50% of the average monthly share price over the last three months prior to the deal's announcement. Cobham employs around 10,000 staff responsible for making its air-to-air refueling systems as well as communication for military vehicles. Today its technology is used in the F-35 Joint Strike Fighter and the Eurofighter Typhoon, together with advanced naval vessels and satellites. However, Cobham has struggled since the company's foundations were shaken by profit warnings in 2016 and 2017 that resulted in the raising of cash from shareholders.

Since then Chief Executive David Lockwood had instigated measures to improve financial performance, much of which had been successfully implemented. In response to shareholder claims that the company had succumbed to Brexit-created problems, Cobham Chairman Jamie Pike said the board had undertaken a very rigorous analysis of Cobham's value. "We felt that 165 pence was very adequate recompense for the future prospects for the business," he said. "We don't accept that we took a short-term view of the future of the business." He added that the board had made significant efforts to encourage rival bids, but that there was no other suitable candidate. Lockwood said there was only one decision the board could take, though he acknowledged there was some emotional impact in seeing a British technological leader bought by U.S. private equity.

### Wheels Up Acquires Avianis Systems,

Private aviation company Wheels Up, has entered into a definitive agreement to acquire certain material assets of Avianis Systems, LLC, a private aviation technology company that provides an advanced Flight Management System (FMS) for private aircraft owners, operators, management companies, charter brokers, and flight departments. Wheels Up is making significant investments in technology that will develop new functionality to help private aircraft operators digitize and streamline their services, allowing them to benefit from tools that simplify and speed up task completion via post-booking automation; calculate real-time pricing, feasibility and availability, and create new revenue streams through access to additional flight demand at scale. Avianis will continue to offer its FMS as a stand-alone solution to its existing and future customers.

### ST Engineering acquires Satcom Anti-Jamming capabilities

Singapore Technologies Engineering has released that its U.S. subsidiary, iDirect Government, has acquired 100% ownership of Glowlink Communications Technology. This acquisition was carried out by way of a merger through a newly incorporated special purpose vehicle, Intrepid Merger Sub and Glowlink, with Glowlink being the surviving entity. The aggregate purchase consideration was US\$20 million on a cash-free and debt-free basis plus employment-based retention payment of up to US\$5 million subject to fulfilment of certain conditions.

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### STS Aviation Group acquires Apple Aviation

STS Aviation Group (STS), a leading global aviation solutions company, has acquired Apple Aviation, a world-wide MRO organization based out of the United Kingdom. With this acquisition, STS continues its recent global expansion. The company will immediately begin to offer aircraft Maintenance, Repair & Overhaul (MRO) services to customers at a state-of-the-art aircraft maintenance facility located in Newquay, England. The facility houses more than 150,000 ft² of space; 40,000 of which is dedicated as a parts processing facility. Mark Smith, president of STS Aviation Group, said "As some may recall, STS made a strategic move into Europe earlier this year after acquiring Triumph Aviation Services' NAAS Division. And with the recent acquisition of Apple Aviation, our company continues to grow on a global scale."

### Boeing and Safran to invest in Electric Power Systems

Boeing and Safran have announced a joint investment in Electric Power Systems (EPS), a company offering a suite of safe, certifiable and light-weight energy storage products that provide high-quality power for aerospace and other markets. The joint investment will help EPS develop a highly automated industrial base capable of producing aviation-grade energy storage systems at an unprecedented scale. The investment will also support the advancement of technologies to further reduce the costs of battery systems for electric airplanes. Boeing HorizonX Ventures and

Safran Corporate Ventures jointly invested in EPS during this Series A funding round. EPS is the second advanced battery solutions company to join the Boeing HorizonX Ventures investment portfolio, following an investment in Cuberg, an advanced lithium metal battery technology company, in 2018. Safran Ventures also recently invested in OXIS Energy, a U.K.-based leader in lithium-sulfur cell technology for high-energy-density battery systems.

### DAE receives US\$1.4 billion investment mandate

Dubai Aerospace Enterprise (DAE) had been mandated by one of the world's largest fund managers to source and manage aircraft valued at approximately US\$1.4 billion. DAE will acquire the assets and DAE's Aircraft Investor Services (AIS) platform will manage the assets on behalf of the investor. The multi-year mandate will involve sourcing and managing the aircraft and assisting the investor with the capital structure for the acquired aircraft. The mandate will primarily target used narrow-body and wide-body aircraft sourced through DAE's global relationships in secondary market trading and sale-and-leaseback channels. The addition of this mandate will bring DAE's managed portfolio to over US\$2.7 billion in assets under management. Coupled with other ongoing projects, DAE fully expects its managed portfolio to grow to its target of US\$5 billion.

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Air Belgium A340  
Photo: Rusada

**Air Belgium** has signed a multi-year contract extension for **Rusada's** MRO and Flight Operations software, ENVISION. Air Belgium operates a mixture of scheduled and ACMI services using a fleet of Airbus A340's. Its scheduled flights serve the Caribbean islands of Guadeloupe and Martinique, while its ACMI customers include British Airways, Air France and LOT Polish Airlines. The airline initially signed up for ENVISION in September 2016, and after a successful initial term has elected to renew its agreement with Rusada for a further three years. The carrier uses ENVISION's Fleet Management module for the continuing airworthiness management of its aircraft.

**iBASEt** a provider of manufacturing, MRO, and quality software solutions for complex, highly regulated industries, has launched "iBASEt MRO", its Maintenance, Repair and Overhaul software solution for MRO execution at MRO Europe. "iBASEt MRO" is designed to enable new levels of visibility, velocity, and reliability for maintenance and repair of highly engineered, products that consists of multiple assemblies and have high value and long lifecycles. The solution serves complex manufacturing OEMs as well as Aerospace and Defense MRO providers who must support ongoing customer demands, rapid engineering changes, and strict compliance requirements. Built upon iBASEt's software technologies and leveraging 20 years of MRO Operations execution experience, the out-of-the-box solution is designed to provide fast on-boarding and

deployment of cost-effective MRO procedures aimed at simplifying the execution of routine & non-routine maintenance tasks. "iBASEt MRO" provides operators with a complete history and product genealogy of all critical materials and resources for MRO work plans, along with full traceability of important sustainment operations such as equipment data, serial numbers and inspection results, including those parts supplied by vendors. iBASEt's solution for MRO can integrate with ERP, PLM, and other software to form an eco-system of digital continuity across the enterprise. This differs from massive silos of data and disconnected systems that are hard to use, expensive to maintain and complex to deploy.

**Component Control** has announced the expanded integration between Quantum Control and **Aerexchange's** AeroRepair platform. Designed to provide effortless data sharing between MRO Service Providers, Part Sellers and its customers, the Integration between Quantum Control and AeroRepair simplifies communication, increases accuracy and reduces manual data entry. Aerexchange, the electronic business network, supports all MRO business processes within the aviation industry for buyers and sellers. Integration with Aerexchange's AeroRepair allows repair facilities to easily accept and process customer orders, send acknowledgements and pricing estimates, update customers with estimated completion dates, and finally send shipping notifications and billings, all from within Quantum.

**TP Aerospace**, a leading aftermarket supplier of wheels and brakes to the aviation industry, is to implement software from **Ideagen** as it expands its global quality management operations. The Copenhagen-based organization will adopt Ideagen's Q-Pulse quality management software as the company rolls out its growth plan – 'Green Sunrise' – a project that aims at moving closer to customers, amongst others, through more locations around the world. With more locations being added to its already widespread network of MRO facilities and sales and support offices, TP Aerospace is not only expanding its operations into new countries and growing its global workforce, the company is also continuously looking for ways to optimize and develop its current procedures to support its growth. Ideagen's Q-Pulse system will provide TP Aerospace with a "single source of the truth" in regard to operational quality management, providing a crucial system for auditing, training, reporting and document management during and beyond its ambitious global growth project.

At MRO Asia-Pacific in Singapore, **FLYdocs** has announced the next generation of aircraft leasing and financial management with its cloud-based Asset Management Platform. Originally launched at MRO Americas earlier this year, the FLYdocs Asset Management Platform is the first software platform to accurately predict the cost and interval of engine shop visits considering the geographical region of operation, FH:FC ratio, 1st Run or Mature Run, and % Derate if applicable. By using this platform, asset managers no longer need to adopt multiple software systems to manage their assets, contracts and EoL projects. FLYdocs offers a single platform which is integrated with its market-leading Aircraft Records Management, offering operators and lessors more clarity into their finances, helping them save time and get ahead with streamlining operations and driving business value. The FLYdocs team returned to MRO Asia-Pacific in Singapore to unveil the significant additions in software functionality and performance, which will provide operators and lessors with greater flexibility and control of their finances.

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European operators account for over 25% of the global active commercial aircraft fleet.  
Photo: British Airways

Europe is one of the most established MRO markets in the world. **AviTrader MRO** examines the heavy maintenance sector and the key trends in the region.

**J**oramco, the Amman based MRO and the engineering arm of Dubai Aerospace Enterprise DAE, signed a new base maintenance agreement for the first time with the Irish budget airline; Ryanair, to perform heavy checks on its Boeing 737 NG fleet. Ryanair has booked two parallel lines at Joramco facility for the upcoming winter season, commencing November this year and until the end of March 2020.

Ryanair's choice in Joramco was an interesting one clearly attesting to Joramco's high level of maintenance and state-of-the-art facilities.



Philippe Albrecht, EMEA Sales Director at StandardAero

However, there seems to be a trend towards bringing back maintenance from Asia back to Europe. Europe offers several benefits as a location for MRO providers, perhaps the most obvious being proximity so some of the largest OEMs (e.g. Airbus, ATR, Pilatus and Daher). Philippe Albrecht, EMEA Sales Director for StandardAero's Airlines and Large Fleets team says long-established European-based MROs also offer the advantage of having a proven, long-term track record

of delivering quality engine overhauls to schedule, a level of reputation usually takes a newly established provider some time to achieve – "The economies of scale enjoyed by the large, established MRO centres in Europe also enables them to compete on a competitive basis world-wide, especially on smaller engines where shopping costs are not onerous," states Albrecht.

European operators account for over 25% of the global active commercial aircraft fleet, as well as 27% of the orderbook. Given the bottlenecks being experienced with current MRO throughput, particularly on the engine side, expansion in MRO capacity is essential to ensure European MROs can manage the scope of checks, indicates David Rushe, Director, Sales and Marketing Europe at Magellan Aviation Group.

Looking at the A320ceo/737NG market - notwithstanding the induction problems being experienced by the newer tech models - there are over 9,000 aircraft in service. "Heavy base checks – at six year and 12-year blocks on the A320ceo, and 8,10- and 12-year blocks



David Rushe, Director, Sales and Marketing Europe, Magellan Aviation Group





Europe offers several benefits as a location for MRO providers.  
Photo: Thomascook Group

on the 737NG – are the most time consuming and complex checks for these aircraft and are the most likely to be outsourced to European MROs. The average current fleet age of both family fleets as well as average retirement ages backs up the opinion of industry observers that airframe MRO spend alone will exceed 3% CAGR.”

The European MRO space is dominated by operator-affiliated MROs – leading examples include Air France/KLM, Iberia Maintenance, Lufthansa Technik (LHT), Turkish Technic. “Whilst these MROs all offer third-party work, their key customers are their sister operator(s) putting further pressure on maintenance slots for operators without affiliated MROs. LHT have tried to manage growing MRO demand by acquiring entities outside of its home bases, notably Malta and Sofia, whilst securing engine SV slots at other MROs for overflow business,” Rushe continues.

Whilst man-hour rates in China and other expanding Asian economies may be lower than Western and Northern European regions, given ongoing skilled labour shortages in Europe, Rushe says turnaround times (TATs) have become more critical. “There are a number of drivers behind this – notably the growth of lean low-cost carriers, an increase in the proportion of leased aircraft where penalties are applied for delayed lease returns as well as more complex maintenance procedures.”

An increase in throughput at European MROs is also likely to put further pressure on already stretched spare parts inventory supply chains Rushe reckons. He says much has been made of OEM delays in new material production whilst aftermarket providers, such as Magellan, face the same pressures in managing repair shop turnaround times – “The OEMs are simultaneously dealing with new product delays across their respective airframe and engine types, whilst aftermarket provid-

ers are challenged by tight supply of airframe and engine assets for part-out.”

Sergei Shkolnik, Base Maintenance Director at Magnetic MRO points out that currently most of the widebodies from Europe are C-checked in Asia. “Following this, not that many MRO’s in Europe have hangarage and, most important, the manpower available to cope with widebodies. Taking all this into consideration the implication will be the rise of prices for maintenance services.”

Europe is seeing MRO consolidations taking place through acquisitions and liquidations and Shkolnik warns that this trend will have considerable impact on the heavy maintenance industry as less players on MRO market means price growth for the end-customers.

Pavel Hales, CEO of Czech Airlines Technics sees big potential in the whole MRO market – “There are not enough available aircraft, especially during the high summer season, so proper and high-quality maintenance is the key for airlines to secure the aircraft in the best shape to safely and effectively operate their flights. This trend, bringing back the maintenance from Asia back to Europe, can be seen rather in the base maintenance of wide-



Sergei Shkolnik, Base Maintenance Director at Magnetic MRO



body aircraft. For maintenance of narrowbody aircraft, the location of MRO partner is also very important factor. For example, the location of our facilities at Václav Havel Airport Prague in the Central Europe is one of our main advantages. It can be easily reached by our clients and it is logistically beneficial in cases where airlines need to deal with unexpected circumstances and need aircraft back in operations as soon as possible."

In the base maintenance division, Hales would like to grow even more. In the mid-term he says the company plans to expand the number of fully equipped stands for narrowbody aircraft in the hangar. "For the future, we have been discussing with our shareholder an important investment where we could invest in a new large state-of-the-art hangar to be located at Prague Airport. This new hangar could be designated also for widebody aircraft."

Czech Airlines Technics are currently working on expanding their capabilities for the A320neo and the B737MAX aircraft to implement these types of services within the scope of their base maintenance and component maintenance departments. "These new types are already in our portfolio for line maintenance. The landing gear overhaul segment will also see a capability expansion to serve B737MAX aircraft in the future. We are also considering adding A220 aircraft approval to our base maintenance portfolio, in the approximate two-year horizon," Hales adds.

We've certainly seen some consolidation over the past couple of years, but Albrecht feels the industry has been able to accommodate the change with relative ease. "In the case of StandardAero, we have been able to respond to the recent removal of two PW100 shops from the authorised network by sharing the load between our two PW100 designated overhaul facilities in Gonesse, France and Summerside, Canada. Specifically, we have been able to support several non-European customers traditionally served by Gonesse from our summerside location, thereby allowing our French location to expand its support of local European operators. At the same time, our Gonesse facility has implemented several operations excellence initiatives, leveraging best practice from other locations within StandardAero, to expand its capacity and performance."

Investment in new and innovative technologies for airframe and engine MRO is accelerating. While Albrecht hasn't seen any bottlenecks in the implementation of innovative MRO technologies, he says it's probably true to say that the introduction of advancements such as digital twins, real-time prognostics and augmented-reality wearable devices are being led by newer generation engines. "This is in part due to the greater benefit of designing engines to utilise such technologies, as compared to the cost and complexity of retroactively adapting an existing engine

to utilise such concepts. This is not to suggest that existing engine designs cannot benefit from advancements in MRO: engine health monitoring has been successfully applied to a large number of in-service powerplants, in part through the use of oil analysis technologies, and advanced coatings have also been successfully applied to older engine types."

With trade tensions between the U.S. and China and one end and Brexit uncertainties at the other such geopolitical standoffs



Maintenance services are coming back to Europe.

can influence aviation. While the CAA itself has undertaken significant planning for a potential Brexit, Albrecht feels it's difficult to tell at this stage whether enough cross-border regulatory collaboration has been undertaken to maintain efficient MRO processes. "This is in large part to the protracted nature of the UK's 'Will they, won't they' exit from the EU. While Rolls-Royce has made a clear effort to limit the impact of a potential Brexit on its operations by consolidating its Design Organisation Approval (DOA) under Rolls-Royce Deutschland, thereby ensuring that design oversight the company's UK products will stay within the EASA regulatory system, there have been few other tangible steps taken this far. The general assumption appears to be that the CAA's long-standing coordination with the European airworthiness authorities would continue even in the event of a Brexit, thereby minimising the overall impact on the aerospace sector."

Lee Kelsey, Sales Director at Farsound Aviation Limited says many of their clients are outside Europe for example in Asia. "We have always had clients across the world which means we are not reliant on one particular region. With the UK's pending exit from the European Union we have increased our stock levels, but don't envision any issues," he says.

Rushe also feels that it is difficult to discuss the outlook for the European MRO market without acknowledging the undetermined impacts on the sector of a disorderly Brexit. From Magellan's perspective, notwithstanding the volume of parts sales to the UK customers, the sector is a major pivot for MRO organisations and repair shops. "There remains uncertainty regarding alignment of UK CAA approvals under the EASA umbrella and certification of parts. It is likely that any renegotiation of UK CAA/EASA approvals will take a lot of time so it will be interesting to see how the MROs and repair shops approach certifying serviceable and overhauled parts in the meantime."

Clearly, there are also uncertainties regarding Brexit in respect to customs and taxation issues, Rushe notes. He says historically, 90% of airframe teardowns within Magellan's European activities have taken place in the UK and there is some unpredictability regarding the movement of removed parts from the UK into the EU market.

European aviation has had a tough year seeing a record number of airline closures. Its hoped that resilience in the market will see the re-possessed fleets absorbed by other airlines in the region, and quickly.



Lee Kelsey, Sales Director at Farsound Aviation Limited.

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Cabin maintenance solutions.  
All photos: Trenchard Aviation

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Established in November 2015, and backed by Graphite Capital LLP, Trenchard Aviation Group employs more than 275 staff and has sites at, or close to, the UK's three largest airports – Heathrow, Gatwick and Manchester – as well as off-site workshop facilities in Worthing and Manchester, and a dedicated operation in the DAFZA Free Zone at Dubai International Airport.

Group accreditations include EASA Part 145 and Part 21 DOA & POA, FAA 145, TCCA, GCAA, AS9110 and AS9120.

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In addition to facilities at, or close to, the UK's three largest airports – Heathrow, Gatwick and Manchester – as well as off-site workshop facilities in Worthing and Manchester, Aero Technics also has its own facilities in the DAFZA Free Zone at Dubai International Airport where it offers dry cleaning services, soft furnishing manufacture, oxygen bottle repairs and replenishment, emergency slide repair and overhaul and plastics repairs.

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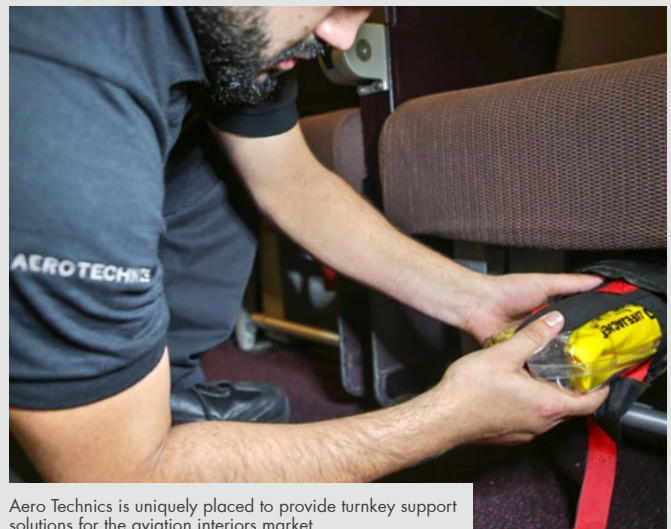
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There are currently over 1 million Servestow™ products in service and Servecorp won two Queen's Awards for Enterprise in 2017 - for Innovation and International Trade.



Aero Technics is uniquely placed to provide turnkey support solutions for the aviation interiors market.





# When disaster strikes...

Airlink connects airlines with vetted NGOs.  
All photos: Airlink

Airlink is a humanitarian relief organisation that connects airlines with vetted NGOs to assist communities in crisis, **AviTrader MRO** looks at the momentous task of rallying up responders and the vital role that aviation plays.

**O**n September 1, 2019 Hurricane Dorian made its first landfall on Elbow Cay, in the Abacos of the north western Bahamas as a Category 5 storm. Its second landfall on Great Abaco Island near Marsh Harbour followed shortly after. The islands were battered by the major hurricane for more than 48 hours. Initial reports indicate catastrophic damage occurred with upwards of 76,000 people impacted. As part of its mission to mobilise the aviation community in times of disaster, Airlink began transporting relief workers to Florida and other east coast states prior to the storm's arrival to ensure a swift response to communities in need.

Navigating the logistics after Hurricane Dorian must have been an enormous task but Airlink President and CEO Steven J. Smith emphasises that when aid organisations partner with Airlink, they not only get free or reduced cost transportation, but as importantly, assistance overcoming logistics challenges posed by damaged infrastructure and constricted supply chains in disaster-impacted areas – “In the Bahamas, all but one small airport on the impacted islands were closed due to significant damage, debris cluttered common approaches by water and roads on the islands, and a significant amount of aid was being delivered into Nassau, which was being used as the hub of the response.”

With support from Airlink's airline partners and other donors, the organisation has transported more than 600 relief workers and 62,000 pounds of aid for nearly 30 humanitarian relief organisations responding to Hurricane Dorian – “Additionally, in our role as a convener of non-profit response partners, we supported information sharing platforms allowing partners to communicate about hard-to-reach communities, unmet needs and identify opportunities for col-

laboration in real time,” Smith mentions.

In the wake of Dorian, Airlink transported relief workers and emergency supplies by air to support the most heavily impacted areas. Airlink were assisting more than 15 response partners, including Save the Children, Impact Northwest, Heart to Heart International, and World Central Kitchen. The organisations brought wide variety of specialisations to disaster-stricken communities and provided search and rescue operations, medical care, safe spaces for children, food and clean water provisions, and other essential assistance.

With regards to disaster management, some element of pre -planning is essential despite the sheer nature of unexpected natural calamities. “Airlink has developed regional plans to help us prepare for responses in specific regions of the world, including the Caribbean. We work to understand the capabilities of our response partners, establish relationships with airlines uniquely positioned to respond in the region, and identify likely needs PRIOR to disaster.”

Hurricane Dorian was extremely slow moving and its projected path put not only The Bahamas on alert, but also most of the US southeast – “Several days before the storm made landfall, we began moving relief workers into communities in the projected path or to staging areas being used for coordination.”

Often getting the supplies and the people needed into the communities most affected is often a greater challenge than shipping the supplies to the region. Smith says responding to disasters occurring in island chains always poses unique “last mile” challenges for the partners. “In this case, we were able to transport supplies to the



capital city Nassau. From there, aid organisations relied on boats, small private airplanes and helicopters in the early days to transport supplies to the most heavily impacted areas.

"In our coordinating role, we were able to connect aid organisations with other Airlink partners like YachtAid to help with that transport. Through donor support and a new relationship with Bahamasair, we also are providing our aid organisation partners with inter-island passenger flights to ensure a sustained response to impacted communities as this response begins to transition into the recovery phase."

As Smith points out, perhaps Airlink's greatest impact in ensuring the supply chain functions effectively and aid reaches those in need as quickly as possible, revolves around two factors: Firstly, making sure only the highest priority supplies are carried on flights Airlink facilitates and are being sent to organisations with robust distribution plans, and secondly, helping personnel from organisations with unique skills in logistics, and resource management quickly get on the ground.

The management of aid coming from response organisations and other sources is a large task, Smith stresses, saying well-publicised, large disasters often elicit an outpouring of public support. "Ideally, that support comes in the form of cash so aid organisations can procure exactly the supplies needed for the response. In some cases, well-meaning people act by sending supplies. If those supplies don't match needs or are not assigned to entities on the ground that can distribute them effectively, communities can be overwhelmed, and distribution impeded."

In this response, Airlink partners like Team Rubicon and Rescue Global provided critical coordination support and organised distribution of supplies for other organisations and government entities like the National Emergency Management Agency. "Our partner Fuel Relief Fund brought and managed fuel supplies on the islands to support the mobility and work of responders. These organisations provide important logistics support that ensures needs in remote areas are identified, available resources are inventoried, and distribution channels to those most in need are established."



Team Rubicon on the plane (Dorian)



Airlink staff with cargo heading to The Bahamas after Dorian

Also, cash donations from Airlink supporters and travel assistance from Air Canada, Alaska Airways, Bahamasair, British Airways, FL-express, JetBlue Airways, Spirit Airlines and United Airlines, made the response possible.

Certainly, coordinating humanitarian efforts after a natural disaster can be a daunting task and there are always lessons learned in getting supplies off the ground as quickly and efficiently as possible – "To optimise humanitarian response, we must be prepared to respond quickly following an emergency. The necessary relationships, resources, processes, and technical capacity must therefore be well established and practiced in advance of crisis so that assistance can be mobilised at very short notice."

With that in mind, Airlink has developed a regional response framework designed to inform a timely response to humanitarian crises based on distinctions in each of these six regions: Asia-Pacific, Europe, Latin America and Caribbean, Middle East and North Africa, North America, and Sub-Saharan Africa.

Smith explains that through consistent engagement of partners and vulnerable communities during non-disaster periods, the regional response framework helps Airlink build a common understanding of the coordination and aid delivery resources available, fostering a more planned and predictable response that better serves communities in crisis. "Airlink is uniquely positioned to convene aid organisations, airlines and other response actors to build partnerships and mobilise response resources and we will continue to do that in advance of the next, inevitable disasters."

One of Airlink's key supporters is global aviation asset management company Aero Werner Services. Mike Cazaz, CEO and President of Werner Aero Services attests that Airlink is an important organisation that helps people worldwide when it is needed most – "The work they do is extraordinary, and we are proud to support them in their disaster responses. We encourage everyone in the aviation industry to learn more about Airlink and get involved."

# In the hot seat.....

Mariano Longo, Founder Aerosep Limited

**AviTrader MRO:** Briefly, what is your job function at Aerosep?

**Longo:** I am the Chief Business Officer and proud Founder of Aerosep Limited. Operationally, I supervise the operation of our three offices and two warehouses worldwide. Commercially, I oversee the smooth run of five exclusive contracts we currently have with some major MRO/airlines in Europe and America.

**AviTrader MRO:** What is the most challenging part of the job?

**Longo:** We have grown immensely since our beginnings in 2013. Our biggest challenge is to keep our feet over the ground; always understanding our place in the market following our golden rule, to create successful business relationships at both ends of the trading chain.

**AviTrader MRO:** What are your current capabilities in terms of engine spares?

**Longo:** We currently work with CFM56, V2500 and RB211 engines. Thanks to our financial strength, in these five years we have built strong alliances with several key actors in the market. This has allowed us to have one of the most exclusive stocks in OH – NS condition.

**AviTrader MRO:** What key trends are you seeing in the engine spares market today?

**Longo:** Airlines need to ensure replacement for their potential AOGs with enough spare engines to reduce On Time Service risks.



Aerosep warehouse team.  
All photos: Aerosep

There are some examples regarding mature and new products philosophies. For example, CFM56 fleet is growing in sales due to manufacturing ratio, product reliability and low prices. In the summertime there are always big oscillations of spare engines availability due to bird strikes, one of the main issues for airlines and MROs.

On the other hand, preventive maintenance for new products is key to ensure engines in-service health. Airlines are taking advantage of MRO 4.0 capabilities and new engines features. In any case, a strong pool spare engine contract is very desirable in order to cover any major airline needs into service

**AviTrader MRO:** In your view, what impact are used serviceable material's (USM) having on the cost of engine spare parts?

**Longo:** Supply chain's delays and manufacturing issues are pushing MROs to bring USM into stage. For this reason, negotiations of remaining FC/FH and configuration are the customers' main concerns in order to make their products repaired as they expect. For example, during 2018 and 2019, some main engine manufacturers had worldwide shortages covered with USM to reduce repairs TAT.

**AviTrader MRO:** There is a growing call for more opportunities for parts manufacturer approval (PMA) spares suppliers. What is the market reaction today for PMA spare parts for engines?

**Longo:** Some customers take a rigid position regarding PMA use for their engines. This kind of spare parts not always bring confidence to lessors and customers because of traceability, so, although this market is partially growing, today PMA parts usually are the last alternative for the customer to cover a supply chain issue. This strategy is consequence of "black market" impact on Airworthiness last decades.

**AviTrader MRO:** You are currently supporting mature engine types, are you seeing reduced OEM support for these engines?

**Longo:** Just the opposite, today we can see the transition between new products (LEAP-1X, PW1000G, Trent XWB...) and mature engines (Trent 500-700-800, RB211, CFM56 Family, CF6 Family...). MROs want to invest in new



Mariano Longo, Founder Aerosep Limited

product capability by obtaining enough income of their mature engine capabilities. But this transition is expected to last at least until late 20's. A good strategy is to have always a mix of engine generation support capability, considering that a good performance on mature products is always a good way of advertising.

**AviTrader MRO:** What's next in the pipeline at Aerosep?

**Longo:** Expansion, continuous expansion. We are currently working with two large projects that will hopefully lead us to the opening of our new two offices in Russia and China.



Warehouse operator in action.





Meredith Frazier

HAECO Cabin Solutions, a division of HAECO Americas headquartered in Greensboro, North Carolina, USA, has expanded its Organization Designation Authorization (ODA) team. The team has welcomed **Meredith Frazier**, who is qualified to work as a cabin safety ODA unit member. This designation allows her to review and approve drawings of parts and/or part alterations to witness tests, among other duties, ensuring all interior products on commercial aircraft comply with FAA standards.



Gail Baker

Collins Aerospace Systems has released that **Gail Baker** has been appointed Vice President, Aftermarket Services, reporting directly to CEO **Kelly Ortberg**. In her new role, Baker is responsible for leading the worldwide commercial and military aftermarket business and customer service organizations, including customer offerings,

long-term aftermarket programs, spares, part repairs, asset management and technical and strategic support. Baker has been with UTC for more than 30 years and is known companywide as a forward-thinking and customer-driven leader. She most recently led the Intelligence, Surveillance, Reconnaissance & Space Solutions segment for Mission Systems where she was focused on driving long-term growth and profitability through customer support and program execution. Baker succeeds Ajay Agrawal who has accepted a new position as vice president of Strategy & Services at Carrier.



Ian Hilton

C&L Aerospace has hired **Ian Hilton** as Director of Business Development for Europe/Africa specializing in ERJ 135/145 and ATR 42-72 aircraft and PW127 and PW127M engines. Hilton has over 20 years of aviation experience consisting of parts sales, inventory management, procurement, logistics and PBH program management. Most recently, Hilton was Director of ATR Products for AAR Aviation Services and Commercial Director at ACLAS Global. Hilton will utilize his extensive product knowledge

and inventory management background to support customers in getting the right aircraft parts efficiently and at the right price.



Mark Shaw

Contrail Aviation Support, a worldwide supplier of surplus and aftermarket jet engine components as well as asset leasing and acquisitions, has appointed commercial aircraft marketing executive **Mark Shaw**, who has 35 years of industry experience, as Vice President of Regional Marketing – EMEA of Contrail Aviation Leasing. In his new role, Shaw will be responsible for airline marketing, business development strategy and revenue-generation initiatives in Europe, the Middle East and North Africa. These initiatives include targeting mid-life/end-of-life narrow-body A320/B737 family aircraft and associated engine assets for acquisition — either naked or with leases attached. Most recently, Shaw served as Marketing Director at Stratos (Monaco) where he was responsible for business development and key airline client relationships within Stratos' commercial aircraft finance, advisory and aircraft sales/leasing activities.

## Other News

**MTU Maintenance**, a global leader in customized solutions for aero engines, has opened an office in the heart of the aviation leasing hub Singapore. The new office is in the Central Business District and its grand opening is being celebrated during the on-going MRO Asia. Luc Morvan has taken on the role of Chief Representative of MTU Maintenance's activities in Singapore. He will be responsible for building up business in the Asia-Pacific region.

**Lufthansa Technik** has further increased its market presence for connectivity modifications in Asia, a rapidly developing market for inflight internet solutions. As the most recent customer for these services, Lufthansa Technik welcomed Chinese service provider **Air Esurfing Information Technology**, which it will help in providing aircraft with the first ever inflight connectivity solution for the Chinese market. Further contract partners include **Honeywell** (antenna hardware provider) and **China Satcom** (satellite provider). According to a new five-year agreement, Luf-

thansa Technik will design and certify Ka-band-based connectivity retrofit packages for both the Airbus A320ceo and A320neo aircraft families as well as the Boeing 737NG and 737MAX. The company will also work with Air Esurfing Information Technology to provide the respective CAAC validated EASA Supplemental Type Certificate (VSTC) to support Chinese airlines. Moreover, Lufthansa Technik will take care of material supply and material handling services for the installation of the packages, that can be tailored to each of Air Esurfing's airline customers and their specific requirements.