Upgrading avionics

Q&A: Regional One

Company profile: Aeronautical Engineers, Inc.

Rotable management

People on the Move

latest appointments

MRO News

from around the world
In this bumper edition of AviTrader MRO our cover story homes in on the avionics cockpit display market. Avionics flight deck displays are a critical part of the aircraft avionics system. They are designed to serve a useful purpose for the crew, referred to as “intended function” by certification regulations. Regulations require flight deck equipment to be usable in both control and display aspects and to be designed to minimise human error.

A CRT monitor requires high voltages—up to 50,000 volts for the electron beam—and it generates a lot of heat. Large CRT screens also have degraded electro-optical performance in the raster mode. In the 1990s, the LCD monitor was chosen to substitute the CRT.

The aviation industry is moving from bulky, power-hungry CRTs to lighter, more reliable LCDs. New aircraft types and versions have adopted LCDs. But a huge pool of electromechanical- and CRT-equipped aircraft remains to be tapped. Given the current economic climate, LCD retrofitting has been gaining momentum over the years. The new displays offer quick plug-and-play conversion, are fully interchangeable and intermixable with existing CRT displays and require no changes to flight deck wiring or panels and no crew retraining.

Well worth the read.

Keith Mwanalushi
Editor
Engine Services
Engine MRO with capability to overhaul CFM56-5B, CFM56-7B and CF6-80C2B models

Digital Technologies
Software development company with multiple subsidiaries delivering Software as a Service (SaaS) solutions

Leasing, Investment, Financing & Trading
LIFT is a multi-strategy aviation investment, leasing, finance and asset management platform

MRO Services
Aerostructures and Component Systems MRO with capabilities to repair nacelle systems, flight control surface and composites, hydraulics, pneumatics, fuel systems, electro-mechanical, actuation, servo controls and electrical power system components

Component Solutions Group
Engine and Airframe supply-chain solutions, including flight-hour programs, inventory management, distribution, 24/7/365 AOG

www.gatelesis.com
Etihad Airways Engineering Expands Capabilities with A350 MRO Services

Etihad Airways Engineering has added Airbus A350 maintenance capabilities to its extensive inhouse portfolio. Etihad Airways Engineering is part of the Airbus MRO Alliance and has emerged as a centre of excellence for the Airbus A380, having supported the A380 fleets of Etihad Airways and third-party customers in the Middle East, Asia, Europe and Australia. The company continues to extend its coverage of major commercial aircraft types and has now received the landmark approval for Airbus A350 maintenance, awarded by the UAE General Civil Aviation Authority (GCAA). The first A350 aircraft to arrive for maintenance in Abu Dhabi comes from the company’s long-term client, LATAM Airlines Group. The aircraft will undergo a heavy maintenance check and modifications as part of its routine maintenance program. The C-check will be followed by full stripping and painting of the aircraft in LATAM’s livery. The airline group is due to send additional A350 aircraft for scheduled maintenance in Abu Dhabi during the year.

Newbow Aerospace starts 2019 with Expansion

Newbow Aerospace, a design, manufacturer and supplier of Ground Support Equipment to the aviation industry, has announced a significant expansion of its manufacturing and production facility to meet customer demand. The new facility, which neighbors its headquarters in central U.K., will see the company’s production capacity double in size, increase its workforce by 30% and introduce significant new product development for its leading-edge manufacturing, fabrication and assembly of its ground support equipment. Work has already commenced on Newbow’s extended facility and is due to be complete by Spring 2019. The new facility will accommodate a new, larger, oxygen-clean assembly room, conforming to applicable standards and allowing increased assembly, testing and throughput of gaseous charging systems and components. In addition, a new, larger calibration laboratory will be introduced, meeting the latest standards for the calibration, re-calibration and testing of ground support measurement equipment.

StandardAero Receives EASA Certification for Fleetlands U.K. TFE731 Engine MRO Facility

One year after announcing its agreement with Honeywell to serve as the only authorized TFE731 heavy engine maintenance facility located in the Europe, Middle East, Africa and India (EMEAI) region, StandardAero’s Fleetlands, U.K. facility has also been granted European Aviation Safety Agency (EASA) certification by the U.K. Civil Aviation Authority. The EASA approval follows Honeywell’s certification of the Fleetlands’ test cell earlier this month. Both certifications follow several months of test cell modifications at Fleetlands, culminating in the successful testing of TFE731-5BR and TFE731-60 model engines where test data from these engines was also tested and correlated within a Honeywell production test cell located in Phoenix, Arizona. In addition to engine MRO services, StandardAero is authorized to perform line level maintenance on Honeywell 36-series APUs at the Fleetlands facility and the company is continuing with expanding Mobile Service Teams in EMEAI to provide on-site service to the approximately 600 business aviation operators in the region.

Air Arabia Selects Honeywell Maintenance Services

Air Arabia has selected Honeywell to extend maintenance services and supply APUs for the airline’s fleet of Airbus A320ceo aircraft. The selection will see the two companies extend their decade-long working relationship and includes an agreement for Honeywell to continue to supply repair services to the airline. Alongside the APU upgrade to its A320ceo fleet, Air Arabia also upgraded two of its A320s with Honeywell’s 131-9A APU, ensuring greater reliability and commonality with the rest of its fleet. The Honeywell 131-9A APU supplies compressed air to start the main engine, as well as air conditioning and electrical power on the ground and in flight. It is known for its reliability and lower maintenance costs over the course of the entire life cycle, resulting in significant fuel savings. The APUs are also fitted with the Predictive Trend Monitoring and Diagnostics Program, which reduces unscheduled removals due to unforeseen faults.

Comlux Raising the Bar on Large VIP Aircraft

Comlux Completion is raising the bar for maintenance services on large VIP aircraft such as ACJ and BBJ. During 2018, Comlux maintained a steady stream of recurrent maintenance clients but also gained four new operators including three BBJs based in the U.S. and one BBJ2 based in the Middle East. In parallel with the growing maintenance business, Comlux has simultaneously worked to complete 2 VIP completions on both a BBJ and an A330-200 while gearing up for the arrival of the first ever BBJ Max 8 completion and ACJ320neo. Comlux Completion is an approved Airbus and Boeing outfitter, an Authorized Service Center for ACJ, and a Warranty and Repair Center for BBJ-type aircraft. On top of scheduled maintenance checks, most of the work accomplished in 2018 required several interior modifications and avionics upgrades. One BBJ was upgraded with a complete Collins Aerospace’s VenueTM cabin management system, for which Comlux and Collins Aerospace signed a gen-eral terms agreement earlier this year.
Pratt & Whitney’s Singapore Engine Center Completes First GTF™ Engine MRO

Eagle Services Asia, Pratt & Whitney’s engine center in Singapore, marks its first PW1100G-JM GTF™ engine overhaul. It also achieved FAA certification in March 2019, adding to approvals received from EASA and CAAS in late 2018. This milestone shows that the facility is progressing on track with ramping up for GTF overhauls. In January 2019, Pratt & Whitney announced the successful induction of the first GTF engine at Eagle Services Asia. To accommodate the GTF MRO capability in its existing capacity, the facility retrofitted and re-designed its shop floor, as well as upgraded its test cell infrastructure and software. Over 2019, it will transition to a ground-based flow-line. Now equipped with MRO capability for the GTF engine, Pratt & Whitney’s Singapore engine center today can accommodate six (6) engine types, namely the PW4000-94, PW4000-100, PW4000-112, GE90, GP7200 and PW1100G-JM. The facility is a member in the global network of MRO facilities that service Pratt & Whitney’s GTF engines.

EASA and ANAC Approve AerTrak ADS-B Out System for Boeing 757-200 Series Aircraft

AerSale has reported that EASA, the European Aviation Safety Agency and the National Civil Aviation Agency of Brazil (ANAC) have approved the company’s AerTrak™ ADS-B Out system on Boeing 757-200 series aircraft (EASA 10068771) and (ANAC 2018S12-05). Last year, the Federal Aviation Administration (FAA) approved AerTrak for Boeing 737 NG series aircraft (ST04009NY) and Boeing 757-200 series aircraft (ST04011NY) to comply with the FAA’s Automatic Dependent Surveillance-Broadcast (ADS-B) Operations rule.
TTA & JHAS Sign Business Partnership Agreement

TTA – Tecno Tessile Adler (Adler Group) and JHAS have signed a partnership agreement for the design and production of aeronautical seats. The agreement is a milestone to introduce new and innovative products in the aeronautical market. These include Economy, Premium, Business and First Class seats. Technology, innovative materials, high quality and tailor-made products will follow the best Italian style and tradition as the union of the two companies. JHAS is a company for design and production of seats and interiors for the aviation market. Its headquarters are located in Latina (Italy) with Design, Style, Certification and R&D departments with the most advanced instrumentations for analysis and simulations (FEM, 3-D virtual simulator) and prototype assembly line.

ST Engineering’s Aerospace Sector Secures 10-year Airframe MRO Contract

Singapore Technologies Engineering (ST Engineering) has released that its Aerospace sector has signed an agreement with a contract value of about US$600 million (approximately S$813 million) to provide aircraft heavy maintenance services to a major North American operator. ST Engineering will support the operator, an existing customer, on a fleet of over 160 wide-body and narrow-body aircraft starting in 2020 and for a period of 10 years. Under the long-term strategic alliance, ST Engineering is able to offer a fleet reliability program that monitors the health of each aircraft and recommend maintenance actions to address identified issues before they impact the airline’s operational reliability. Continuous improvement initiatives over the duration of the program will also help drive greater efficiency and shorter turnaround times during maintenance.
SmartLynx Airlines Extends Relationship with AJW Group

AJW Group has expanded its spares support services with Latvian charter airline, SmartLynx Airlines. AJW and SmartLynx have agreed a new contract to cover the supply of consumables and expendables for the entire SmartLynx fleet and an extension of the existing PBH to cover the airlines rapidly growing A320 fleet. SmartLynx Airlines, previously LatCharter Airlines, is an ACMI and charter airline with its headquarters in Riga, Latvia. AJW Group has supported the airline since its inception – marking more than ten years in partnership. The fast-growing airline has seen over 2.5 million customers travelling to countries across Europe, Africa and Asia.

StandardAero and Thales announce progress on new light helicopter autopilot system

StandardAero and Thales have made continued progress in their partnership focused on a new light helicopter autopilot system, with an in-depth market study and design definition now complete and planning underway for the next phase of development. This advanced autopilot system is one element of StandardAero’s SAFECRAFT portfolio, comprised of various safety upgrade equipment specifically dedicated for the light helicopter market, initially targeting the Airbus Helicopters AS350 helicopter platform. Over the course of the past four months, the joint team has performed the first phase of the program, which included the collection of market input directly from operators to understand the unique requirements of light helicopter operators across a wide variety of mission profiles, as well as the definition of design requirements for the initial introduction of this system into the popular AS350 platform. Introduction of this new autopilot system to the market will bring unprecedented technological capability to light helicopter platforms, unlike anything else on the market today. This advancement is slated to be the first of its kind, bringing proven, transport category levels of capability and safety to the light helicopter market. Features and capabilities built into the design of the system will be in direct correlation with the needs of operators, based on input received over the course of the program’s development.

AEI adds STAECO as Authorized Conversion Center

Aeronautical Engineers (AEI) has selected TaiKoo (Shandong) Aircraft Engineering Company, also known as STAECO, as an Authorized Conversion Center. “As we gear up production for the B737-800SF program, we needed to expand our conversion line capacity,” said Robert T. Convey, AEI Senior Vice President Sales and Marketing. “STAECO is perfectly situated to serve the broader Asia-Pacific region and is an expert in narrow-body maintenance and modifications with vast experience performing cargo conversions.” AEI currently has three active Authorized Conversion Centers including, Commercial Jet Inc., in Miami, Florida; Commercial Jet Services in Dothan, Alabama; and KF Aerospace in Kelowna, B.C. Canada.

LHT signs new Contracts with Major Russian Carriers

Three major Russian passenger and cargo carriers have contracted Lufthansa Technik AG for comprehensive and long-term support. Aeroflot – Russian Airlines has entrusted Lufthansa Technik with Airframe Related Components (ARC®) services for its A320 family aircraft. Ural Airlines has contracted Lufthansa Technik to provide Total Component Support (TCS®) for its new Boeing 737 MAX aircraft and extended an existing agreement to support the addition of Airbus A320neo aircraft to its fleet. AirBridgeCargo Airlines has signed a long-term Total Component Support contract for its Boeing 747-400F freighter fleet. Lufthansa Technik has developed close partnerships with carriers in Russia and the CIS region. The long-standing cooperation with Aeroflot – Russian Airlines and Lufthansa Technik has been developing over more than 25 years. The support for Ural Airlines dates back to 2006 when the carrier added the first Airbus A320 to its fleet.
Magnetic MRO Completes First 3-D Scanning Project

Magnetic MRO continues to expand its wide range of services by adding Shining 3-D FreeScan X7, a handheld 3-D scanner to its selection of tools. The laser was first used as a part of MAC Aero Interiors’ and TUI Group’s latest cooperation on lavatory refurbishments. FreeScan X7 is an ultra-portable handheld 3-D laser scanner with a flexible and convenient scanning mode, providing high accuracy and stability, and covering all the depth and thickness measurements. The device is applicable to a wide range of operating environments and a variety of measured objects. It can dramatically improve time and cost efficiency by reducing the manpower needed for a project. The addition of the 3-D scanner is another step in the company’s strategy of distinguishing itself as an industry leader in innovation. The scanner was first used in January 2019 on a Boeing 767 aircraft as part of the latest partnership between Magnetic MRO’s subsidiary brand MAC Aero Interiors and travel company TUI. This new four-year contract between the two companies includes the production of 20 lavatory units for TUI’s Boeing 767-300 fleet, and the scanner will play an integral role in achieving that.

SR Technics Malta continues to expand its footprint in 2019

SR Technics has announced its plans for continued growth at its Malta facility in 2019. Over the course of the year, projects include delivering a new six-bay hangar and transforming local operations into a Center of Excellence for SR Technics base maintenance. In order to support this transformation in the near future, a VP of Operations, Daniel Galea, will be joining the company on March 1, 2019, to lead the operations in Malta for SR Technics. Galea has worked in the aviation industry for nearly two decades. General Manager Arthur Magri will remain in charge for the overall Malta organization.

PropONENT and Joramco Sign Agreement at MRO Middle East

At MRO Middle East, independent aerospace parts distributor PropONENT and commercial aircraft maintenance, repair, and overhaul company Joramco has made an agreement for PropONENT to support the supply of consumables and expendables for Joramco. PropONENT will also be exploring other value-added services such as kitting and consignment to further develop and expand support for Joramco. This agreement will be active through December 31, 2019.

GKN Aerospace obtains EASA STCs for ADS-B Out modification for Boeing 747 and 757

EASA has issued Supplemental Type Certificates (STC) to GKN Fokker Services for ADS-B Out modification for the Boeing 747-400 and 757-200 and 757-300 aircraft, including freighter versions. Each STC can be used to install all compliant transponder types in combination with every compliant GPS source offering, a unique and valuable solution to operators with mixed configurations in their fleet. Multiple GKN Fokker Services’ customers have already ordered the Boeing 747 and 757 ADS-B Out modification enabling them to be prepared for both the FAA and EASA mandates in 2020. FAA validation of both EASA STCs will follow later this quarter.

MIAT Mongolian Airlines Extends PBH Contract with AJW Group

AJW Group has extended its power-by-hour (PBH) contract with MIAT Mongolian Airlines. This extension marks the addition of the carrier’s Boeing 737 MAX aircraft to the contract. The existing contract with MIAT Mongolian Airlines includes full PBH support for their Boeing 737 Next-Generation aircraft and the airline’s Boeing 767 aircraft. AJW will be positioning a dedicated main base inventory solution locally, specific to MIAT’s MAX aircraft, to meet their immediate operational needs in Mongolia. In addition, the extended program will give MIAT access to AJW’s stock of Boeing spares, conveniently sited for their global route networks across Europe, Central and Eastern Asia.
FL Technics Signs Exclusive Partnership with Italian Aircraft Seating and Interior Company JHAS

FL Technics, a global provider of integrated aircraft maintenance, repair and overhaul services has concluded an exclusive partnership with JHAS, an Italian aircraft seating and interior company. “JHAS provides different, tailor-made solutions for aircraft interiors. This is not usual in aviation industry as we are looking for a breakthrough out of standardized seating environment. We are glad that JHAS chose us as their exclusive partners as this is a great opportunity for FL Technics also, giving us an upper hand in our services,” says Zilvinas Lapinskas, CEO at FL Technics. Since the beginning of this cooperation, FL Technics will be an official representative of JHAS in Europe, Africa, Middle East, CIS and Russian regions, as well as Asia Pacific region. FL Technics will act as exclusive seller and promoter of economy, business and first class seats so to cover all the typology of products for aircraft cabin interiors classes.

ACTSI Eyes Subic as Business Aviation Hub

Aviation Concepts Technical Services Inc. (ACTSI) – a business aviation services provider based in the Philippines – has signed a lease agreement with Subic Bay Metropolitan Authority (SBMA) to transform the Subic Bay International Airport (SBIA), a former United States Navy base, into a hub for business aviation in the Asia Pacific region. Under a 25-year partnership with the SBMA, ACTSI is committed to providing hangar parking, corporate jet Maintenance, Repair & Overhaul (MRO) services and aircraft corrosion preventative solutions at SBIA, to ease the congested hangar parking and maintenance burdens in the region. Close to 18,000 m² ACTSI hangar facility is targeted to complete its premier upgrade in the third quarter of 2019. The newly refurbished MRO hangar facility is set to meet standards of aircraft Original Equipment Manufacturers (OEM) and clients’ expectations. As the former US Navy base, SBIA allows ACTSI’s large-sized aircraft users to enjoy the extensive runway length at 9,000 feet for easy take-offs and landings. The ACTSI Subic hangar facility has Part 145 approvals from the Civil Aviation Authority of Cayman Islands and Bermuda; it is currently working towards expanding its capabilities to include an FAA 145 approval.

ATR Extends Type ‘A’ Maintenance Visit Intervals

Turboprop manufacturer ATR has received certification from EASA to extend the intervals between the Type A maintenance checks from 500 to 750 hours, for all its aircraft series. This 50% increase in intervals will provide ATR customers with a significant reduction in aircraft maintenance costs and an increased aircraft availability of one additional day every 1,500 flight hours, generating additional revenue opportunities. ATR’s global fleet represents over 1,200 aircraft. As part of its policy of placing the customer at the heart of its business, ATR is able to provide 24/7 support to its operators via its brand new Customer Care Center based in Blagnac, near Toulouse, France.

Aircraft Maintenance Services Australia Rebrands to Heston MRO

Aircraft Maintenance Services Australia (AMSA), the Brisbane-headquartered independent MRO organization, has been rebranded to Heston MRO. Following recent acquisition of AMSA from previous airline owners, a truly independent MRO organization was created with a presence in all major Australian airports: Sydney, Melbourne, Brisbane, Perth, Adelaide, etc. Rebranding to Heston MRO is the first step on the strategic direction to create a strong independent Total Care MRO player in Australasia, a regional alternative to global MRO brands. With warehouses in Brisbane, Sydney and Melbourne, Heston MRO is launching its local components trading, exchange, repair management, and leasing business in the earlier half of 2019. This will be followed by Engine Management and on-wing services’ offering for airlines, leasing companies, and OEMs in the Australasian region. Further development up to light hangar maintenance is considered as the next growth stage.
Oriens Aviation Expands into Pilatus PC-24 Sales and Support

Oriens Aviation has signed an agreement with Pilatus Aircraft to extend its exclusive U.K. and Ireland Authorised Pilatus Centre at London Biggin Hill Airport to the PC-24 Super Versatile Jet, effective immediately. In readiness, it is ramping up tooling and sending engineers to Stans, Switzerland for training to add the twin-engined jet to its Part 145 MRO approvals. It expects to achieve this by the end of the third quarter. Oriens’ announcement comes on the first anniversary of the business opening of its Authorised Pilatus Service Centre and a successful four years as the OEM’s representative, facilitating the introduction of 10 Pilatus PC-12s into service in its region.

Safran to build Indian plant to make parts for LEAP engine

Safran Aircraft Engines is to invest €36 million (US$41 million) in the creation of a 13,000 square meter plant, including 8,000 square meters of workshops, to make parts for the LEAP turbofan engine from CFM International. CFM International is a 50/50 joint company between Safran Aircraft Engines and GE. Construction is due to commence mid-June this year with completion in 2020. Initially the plant will have approximately 50 employees, which will rise to roughly 300 at full capacity, with parts production also commencing in 2020. “We’re delighted to open a new chapter in our long history with the Indian aerospace industry, thus reasserting Safran’s commitment to our “Make in India” strategy,” said Philippe Petitcolin, CEO of Safran. “Aerospace continues to be a significant driver of India’s growth, and we want to fully support this dynamic by bolstering our investments and training programs in the country.” When operating at full speed in 2023, the plant will be able to produce 15,000 parts per year to support the LEAP’s sustained production rate. CFM is set to deliver 1,800 engines in 2019, rising to 2,000 starting in 2020. The new-generation LEAP entered service in 2016 and powers more than 700 Airbus A320neo and Boeing 737 MAX commercial airliners, including 54 operated by Indian airlines.

Joramco Obtains EASA Part-145 Approvals for Boeing 737 Max and Airbus A320neo

Amman based MRO Joramco, the engineering division of Dubai Aerospace Enterprise (DAE), has obtained EASA Part-145 approvals for two additional aircraft types, the Boeing 737 MAX and Airbus A320neo. This is the third additional approval during the last six months following receipt of EASA Part-145 approval for the Boeing 787 in September 2018. Firoz Tarapore, Chief Executive Officer of DAE commented: “The addition of these approvals marks a significant milestone in Joramco’s transformation journey led by Joramco’s CEO, Jeff Wilkinson. It reaffirms Joramco’s commitment to excellence, allows us to deepen our existing customer relationships, and supports DAE’s vision of expanding Joramco’s capabilities and service offerings.”

Embraer Service Center in Sorocaba Performs First Complete Renovation of Legacy 600

The Embraer Executive Jets Service Center in Sorocaba, Brazil, has performed the first complete renovation of a Legacy 600 business jet. The used aircraft was purchased by a South American customer who chose to customize the whole aircraft with a new interior, systems upgrades and a new paint scheme. This Legacy 600, built in 2006, has received new seats, carpets, ceiling material and side panels, as well as a new varnish hue for all the furniture. The galley received new flooring and the divan and curtains now have new fabrics. The service team also performed an overhaul of the landing gear and the installation of ADS-B Out (Automatic navigation and aircraft tracking data transmission technology), along with a GPS upgrade. The company’s service center in Sorocaba started the Interior Shop implementation project in 2018 to expand the portfolio of services offered to Embraer Executive Jets’ customers. The Sorocaba Service Center is part of the TechCare platform, which offers the best integrated service and support solutions, from small repairs to fully customized services like this interior renovation, meeting customers’ highest standards.
Airbus Signs Flight Hour Services Contract with Japan Airlines

Airbus has signed a new Flight Hour Services (FHS) contract with soon-to-be A350 XWB operator Japan Airlines (JAL). Airbus is welcoming JAL into its FHS Components Services programme for its new fleet of 31 A350-900 and A350-1000 aircraft. Airbus FHS will provide fully integrated component services including spare pool access, on-site-stock replenishment at the main base and components repair. Through FHS, Airbus offers airlines its extensive and proven expertise in fully integrated maintenance services, and the advantage of its OEM expertise as well as one single interface to manage their whole fleets and associated component support operations.

Sky Prime has chosen the Honeywell Avionics Protection Plan and Mechanical Protection Plans

Sky Prime, the Saudi Arabia-based private jet operator, has chosen the Honeywell Avionics Protection Plan and Mechanical Protection Plans to ensure the Honeywell equipment on board its Gulfstream jets is protected to enhance performance of the aircraft and help reduce downtime during repairs. The Honeywell Avionics Protection Plan (HAPP) is a maintenance service program that offers full coverage for all Honeywell avionics. The plan is designed to help operators avoid unplanned maintenance costs and downtime by agreeing to a fixed-price annual fee, which helps operators handle unforeseen issues quickly to keep their aircraft in service. The Honeywell Mechanical Protection Plan (MPP) provides aircraft operators with access to rapid service and support from Honeywell-trained product experts for maintenance of Honeywell mechanical technologies.

The First BBJ MAX 8 Arrives at Comlux for Cabin Completion

Further to green delivery from Boeing back in December 2018, followed by exterior paint work, the first ever cabin completion for the BBJ Max 8 has arrived at Comlux Completion. Comlux is planning to deliver the aircraft to its U.S.-based owner before the end of the year. The cabin interior of the first BBJ Max 8 has been designed by New York-based architect, Peter Marino, FAIA, the principle and founder of Peter Marino Architect, a 160-person firm. Widely credited with redefining modern luxury through equal emphasis on architecture and interior design, Marino’s work includes award-winning residential, retail, cultural, and hospitality projects worldwide.

Finance News

Embraer fourth-quarter results – major loss reveals executive jet concerns

Embraer SA, the Brazilian plane maker, has reported an unexpected fourth-quarter loss due to a write down in its underperforming executive jets division. The results have subsequently cast even greater concern over the company’s decision to sell off 80% of its profit-making commercial jet unit to Boeing. The US$18.1 million fourth-quarter loss was primarily due to the US$61.3-million write down for spending on research and development for the “Legacy” line of jets which have underperformed where anticipated sales are concerned. The originally anticipated return was US$8.4 million based on a Refinitiv poll of six analysts. With the defense arm of Embraer posting an operational loss of US$183 million in 2018 and the executive jets di-
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vision a loss of US$57.5 million, shares fell 2 percent on the Bovespa stock index and a total of 15 percent over the year, the majority of this loss coming after January’s warning that the company had missed its revenue estimates for 2018. With 50 percent of Embraer’s revenue coming from commercial jet sales, up from 38 percent in 2017, the sale of 50% of the commercial jets division for US$4.2 billion will now shed uncertainty over the future of the company, a fear backed up by a considerable degree of resistance concerning the sale. Embraer lost US$178 million in all of 2018, compared to a profit of $264 million in 2017. Embraer had told investors in January that it had missed its revenue estimates for 2018 and the company would see little to no profits in 2019 and 2020.

Boeing gets Embraer shareholder approval for JV

Boeing will drum up orders from allies of the United States.

Bombardier Concludes Sale of Business Aircraft Training Unit to CAE

Bombardier has confirmed the conclusion of the sale of its flight and technical training activities to CAE, for an enterprise value of CA$645 million (US$485 million). Net proceeds are expected to be approximately CA$500 million (US$376 million) after the assumption of certain liabilities, fees, and closing adjustments. Bombardier and CAE also agreed to continue their Authorized Training Provider (ATP) relationship pursuant to which CAE carries out the training activities for Bombardier Business Aircraft, including from the training centers located in Montréal and Dallas.

BOC Aviation posts full-year 2018 results

BOC Aviation has reported its financial highlights for the year ended 31 December 2018. Total revenues and other income rose 23% year-on-year, to US$1,726 million. Profit before tax was US$685 million, up 24% year-on-year, and net profit after tax was US$620 million. Total assets increased 14% year-on-year, to US$1.8 billion at 31 December 2018. The company raised US$2.7 billion in new financing and ended the year with a debt to equity ratio of 3.0 times. BOC Aviation maintained strong liquidity with US$243 million in total cash and short-term deposits, and US$3.6 billion in undrawn committed credit facilities at 31 December 2018.

Héroux-Devtek Reports Fiscal 2019 Third-Quarter Net Income of CA$7.4 million

Héroux-Devtek has reported that consolidated sales increased 49.0% to CA$144.5 million, compared with CA$97.0 million last year, driven by CESA and Beaver which together have contributed CA$39.6 million, as well as 8% organic growth. The company achieved higher sales in both defense and commercial aerospace markets and had a net positive impact on third-quarter sales of CA$16 million, resulting from year-over-year fluctuations in the value of the Canadian currency versus foreign currencies. Commercial sales increased 25.7% to CA$65.5 million, compared with CA$52.1 million last year. This was mainly driven by Beaver and CESA’s sales, increased deliveries to Boeing for the 777 and 777X programs, as well as higher business jet sales, mostly related to the ramp-up of deliveries for the Embraer 450/500 program and higher sales of spares. Defense sales increased 76.0% to CA$79.0 million, from CA$44.9 million. This was essentially due to Beaver and CESA’s sales, higher spares requirements from the U.S. Government and higher manufacturing sales to certain civil customers. These factors were partially offset by the ramp-down of repair and overhaul ("R&O") activities for the United States Air Force following completion of the contract. Gross profit increased to CA$24.9 million, or 17.2% of sales, versus CA$15.8 million, or 16.3% of sales, last year. The increase was mainly driven by the impact of the Beaver and CESA acquisitions and higher throughput which led to better absorption of manufacturing costs, partially offset by exchange rate fluctuations which had a negative impact of 0.6% of sales during the quarter. Operating income increased to CA$11.9 million, or 8.2% of sales, compared with CA$6.6 million, or 6.8% of sales, last
year, reflecting mainly the Beaver and CESA contributions. This year and last year’s operating income included acquisition-related costs of CA$2.1 million and CA$0.6 million, respectively, in connection with the acquisitions of CESA and Beaver. Adjusted EBITDA, which excludes non-recurring items, also grew, reaching CA$22.9 million, or 15.8% of sales, compared with CA$13.6 million, or 14.0% of sales, a year ago. Financial expenses increased to CA$2.8 million, compared with CA$0.4 million last year. This variation mainly reflects the interest charge on new debt incurred to finance the CESA acquisition and higher interest rates. Last year’s financial expenses also included a CA$0.6 million net gain on certain derivative financial instruments.

Net income for the third quarter of fiscal 2019 was CA$7.4 million compared with CA$0.6 million a year ago. Excluding non-recurring items net of taxes, adjusted net income reached CA$9.4 million versus CA$5.7 million last year. (US$1.00 = CA$1.34 at time of publication.)

**DVB Bank to sell Aviation Finance Division**

DVB Bank has signed an agreement with MUFG Bank, a consolidated subsidiary of Mitsubishi UFJ Financial Group and BOT Lease, an affiliate of MUFG, for the sale and transfer of DVB’s Aviation Finance division to the firms. The purchase agreement provides for the entire Aviation Finance client lending portfolio (€5.6 billion as at 30 June 2018), employees as well as other parts of the operating infrastructure to be transferred to MUFG. The transaction also provides the Aviation Investment Management and Asset Management businesses to be transferred to BOTL. Closing of the agreement is subject to the approval of antitrust authorities, as well as other conditions. The sale is expected to be closed during the second half of 2019.

**Boeing Acquires ForeFlight**

Boeing has completed the acquisition of ForeFlight, a provider of innovative mobile and web-based aviation applications. ForeFlight has partnered with Boeing for the past two years to bring aviators Jeppesen’s aeronautical data and charts through ForeFlight’s popular mobile platforms. Now, the teams will integrate talent and offerings to bring innovative, expanded digital solutions to all segments of the aviation industry. The acquisition of ForeFlight aligns with Boeing’s growth strategy of complementing organic investments with targeted, strategic investments that position the company for long-term growth. Terms of the approved deal are not being disclosed.
and do not affect Boeing’s financial guidance or the company’s commitment to returning approximately 100 percent of free cash flow to shareholders. Headquartered in Houston, Texas, ForeFlight has approximately 180 employees.

Aero Capital Solutions Raises First Aviation Investment Vehicle

Aero Capital Solutions (ACS), a mid-life aircraft leasing platform, has successfully closed its first aviation investment vehicle with total aggregate equity commitments of US$200 million. Investors include a broad group of sophisticated investors, registered investment advisers, and single and multi-family offices. In addition to the US$200 million of equity, ACS closed on a US$400 million debt facility with a multinational investment bank providing a total of approximately US$600 million of capital for deployment. Adam Davidson, ACS’ EVP of Business Development, commented, “We were pleased to see the strong demand for our first offering from such a sophisticated and diverse group of investors. Raising our first investment vehicle will allow us to continue building on our successful track record of acquiring and monetizing mid-life commercial aircraft.” As of its final close on December 31, 2018, the vehicle was approximately 50% deployed, comprised of 21 commercial aircraft. The current portfolio includes a mix of mid-life Boeing and Airbus aircraft. These aircraft are on lease to a diversified group of airlines throughout the world.

Magnetic MRO acquires Dutch Direct Maintenance, enters wide-body market

Magnetic MRO has completed the acquisition of Direct Maintenance, an Amsterdam-based independent MRO provider that is specialized in Line Maintenance for narrow- and wide-body aircraft. The deal adds Airbus A380 and Boeing 787 to Magnetic MRO group’s capabilities and doubles its global line stations network, while allowing the Dutch company to keep the Direct Maintenance brand. Signed in February 2019, the deal covers the transfer of 100% of Direct Maintenance’s shares from its previous owner Direct Aviation Group to Magnetic MRO. It also includes the right for the newly acquired company to keep operating under the Direct Maintenance brand. With a team of 140 employees, the Dutch MRO company provides a wide range of line maintenance services for narrow- and wide-body
Safran has reported adjusted revenue of €21,050 million for FY 2018, an increase of 32.0% on a reported basis, including a ten-month contribution of €3,799 million from Zodiac Aerospace and €338 million of currency impacts. On an organic basis, adjusted revenue grew 10.4%. Adjusted recurring operating income was €3,023 million (14.4% of revenue), an increase of 37.9% on a reported basis compared to €2,192 million (13.7% of revenue) in FY 2017. FY 2018 adjusted recurring operating income included a ten-month contribution from Zodiac Aerospace amounting to €290 million. Excluding Zodiac Aerospace, adjusted recurring operating income grew 24.7%. Adjusted net income – Group share was €1,981 million (basic adjusted EPS of €4.60 and diluted adjusted EPS of €4.54). In 2017, adjusted net income – Group share amounted to €2,393 million comprising €1,563 million of net income from continuing operations and €830 million of net income from disposal gains. FY 2018 civil aftermarket was up 12.2% in USD terms driven notably by spare parts sales for second generation CFM56 engines. (€1.00 = US$1.14 a time of publication.)
Information Technology

MDH-Rockland Services has chosen WinAir Version 7 to manage its aircraft maintenance programs. The company completed an on-site Pre-implementation Consultation and determined that WinAir was the solution of choice for their operation. Based on MHD-ROCKLAND Services’ requirement for significant hands-on support, aggressive implementation timeline, and the intricate nature of their new line of business, WinAir was the viable solution that was recommended.

“Flight Operations” is a newly established division of MHD-ROCKLAND Services, with a hangar facility located at the Keystone Heights Airport, Starke, Florida, USA. The company is currently in the process of ramping up operations for its fleet of five recently acquired aircraft and is preparing for its commercial Aircraft Operator Certificate (AOC). The Flight Operations Division will concentrate primarily on the training of P-3C flight crews (pilots and flight engineers) for the P-3C Orion aircraft. It will draw on the experience of its parent company MHD-ROCKLAND Inc., which has operated in the aerospace industry for over 50 years, maximizing aircraft performance, reducing down-time, and extending the service life of aging commercial and military fleets. The parent company is also a US Government channel partner and boasts one of the world’s largest privately-owned P-3 and C-130 inventories. Since MHD-ROCKLAND Services will be training and performing maintenance exclusively on the P-3C Orion and, knowing that WinAir has experience with similar complex aircraft variances, this added to their confidence in the product.

Johannesburg, South Africa based Airlink recently completed its implementation of the TRAX eMRO cloud software solution. eMRO caters to every aspect of aircraft maintenance management. It is deployed via any web browser and allows users to stay connected from any work location. With true offline capability, eMRO automatically synchronizes when connected. Airlink is a feeder network airline aimed at linking the smaller towns, regional centers and hubs throughout the country.

It is in a strategic alliance with South African Airways and South African Express Airways and serves 38 destinations in 9 countries on the African continent. The fleet of 59 aircraft includes Embraer ERJs, Avro RJ85s, and Cessnas. Recently, Airlink became the first South African airline to acquire Embraer E-Jets (E-170s and E-190s). Airlink will next move into Phase 2 of its modernization plans and employ the TRAX eMobility web-based and iOS apps. The combination of eMRO and eMobility software products will allow the Airlink team to be truly mobile in its maintenance operation. TRAX congratulates Airlink team on their accomplishment.

Swiss-AS has reported the successful go-live of AMOS at Malaysia Airlines. The national carrier of Malaysia signed for AMOS at the end of September 2017 and went live with AMOS just 14 months later, while now managing more than 100 end-to-end processes with AMOMalaysia Airlines undertook a strategic project to transform and optimize the entire organization. The AMOS implementation was considered as one of the major milestones in this process. The industry-best practice-processes that became possible via AMOS were fully adopted to render the maintenance division future-proof. The organizational transformation within the engineering and maintenance departments does not end with the go-live of AMOS. In fact, the airline is already looking to implement paperless solutions, such as Swiss-AS’ e-signature solution, to further digitalize the maintenance and engineering operations and provide a platform to connect data across the organization.

Manta Air, the Maldivian domestic airline, has gone live with Rusada’s maintenance management software, ENVISION, after a successful deployment. Manta Air is the newest airline to serve the Maldivian domestic market, having successfully commenced operations.
last month. The carrier operates a fleet of ATR72-600s with several DHC-6 Twin Otter’s set to join in the coming months. From its base in Malé it serves the destinations of Kudahuvadhoo, Ifuru, Dharaavan-dho, and Thimarafushi. Rusada’s expert implementation team successfully deployed eight of ENVISION’s modules in just four months, providing Manta Air with the key information and insights needed during the launch phase of an airline.

CargoLogic Germany (CLG), the Volga-Dnepr Group’s (VDG) newest affiliate carrier, is preparing to take delivery of three converted Boeing 737-400 freighters for its Leipzig-based startup. The cargo airline will follow the business model of VDG’s first partner airline, the U.K.-registered CargoLogicAir (CLA). CLG will focus on express and e-commerce traffic in Central and Western Europe and will increase its fleet size as the demand dictates. Understanding the importance of a streamlined maintenance operation for the anticipated future growth and opportunity, CLG selected the TRAX eMRO cloud-based solution to manage its fleet. eMRO is a web-based, device-agnostic ERP product that will keep its users connected from where ever they work. eMRO is a complete system with complete information flow. The numerous system modules cover technical, maintenance, materials, finance and quality management to help reduce downtime, provide access to real-time data, and ensure regulatory compliance.

Sri Lankan Airlines and Go Air have signed agreements with Airbus to benefit from the manufacturer’s cloud-based platform Skywise Core. Go Air, the first Indian customer on Skywise, will use the platform to reduce operational interruptions and maximize aircraft utilization and flight operations. This will benefit the airline’s existing fleet of about 50 aircraft and the future deliveries. “With the growth of our A320 fleet, we are delighted to join Skywise. We are convinced this digital platform will support our daily operations,” said Mr. Jeh Wadia MD and acting CEO of GoAir, India. Skywise will primarily help Sri Lankan Airlines anticipate maintenance tasks for its A320 and A330 fleet, allowing them to track and analyze their operations and performance data. These will benefit the airline’s present fleet of 30 aircraft and those on order.

Willis Lease Finance Corporation (WLFC) and FLYdocs have joined forces to develop a pilot program demonstrating the use of blockchain technology on an open source data sharing platform for aircraft, engine and component records. The two powerhouses are engaging in what they anticipate will be widely regarded as a pioneering move in the digital transformation of the aviation industry. Blockchain has already established a reputation in the financial sector as the core technology underpinning virtual currencies such as Bitcoin, and this initiative between WLFC and FLYdocs seeks to explore similar benefits within aviation. The cutting-edge development attempts to be the first real use of a blockchain and artificial intelligence (AI) solution for managing commercial aircraft, engines and component transitions.

Other News

Liebherr-Aerospace Lindenberg GmbH, Lindenberg (Germany), Liebherr’s center of excellence for flight control, actuation, gears, gearboxes and landing gear systems, and Liebherr-Aerospace Toulouse SAS, Toulouse (France), Liebherr’s center of excellence for air management systems.

Aerospace Engineering Solutions (AES Global), a U.K. and EU aerospace design and certification organization, has extended its operations and has opened an engineering design office in Shannon, Ireland. To enhance this expansion, AES Global has gained EASA Part 21 approval for its Irish base, introducing DOA AES Global, trading under Aerospace Engineering Solutions. The opening of its Shannon office signifies the continuation of the company’s growth plans in Ireland, providing local employment and adding engineering capabilities to meet with customer and regulatory demands. Throughout AES Global’s 20-year history to date, the company remains a reliable design and certification organization for the local community of lessors and airlines, providing cost-effective design solutions to the aerospace community. Its “One-Stop-Shop” philosophy means DOA AES Global can fully support and understand the needs of its customers and can provide innovative solutions which meet European rules for operators.
In August last year, Thomas Global, specialists in electronic systems solutions for aerospace and defence applications announced that it had been selected by a major North American operator for installation of its TFD-7000 series flight displays for its fleets of Boeing 757 and 767 aircraft.

The TFD-7000 Series displays are plug-and-play active matrix LCD replacements for legacy Rockwell Collins EDU-776C/D and EDU-766C/D cathode ray tube (CRT) displays installed in Boeing 757, 767 and 737 Classic flight decks.

Thomas Global said displays significantly reduce maintenance costs compared to keeping the legacy CRT displays and eliminate the obsolescence threat and last-time buy commitments associated with CRT technology. In addition, the TFD-7000 Series helps operators to avoid more extensive and expensive full flight deck retrofits – while sustaining aircraft operations and meeting operational requirements.

Installation began in early 2019.

The transition from CRT to LCD screens has been fairly significant within the aviation industry as a whole. On many platforms, LCD has grown to become standard fit since the early 2000s, observes Gavin Simmonds, Chief Operating Officer, AJW Group.

At AJW Group, they don’t necessarily see a great deal of whole aircraft retrofit activity due to its extensive cost. This is the case for the wiring in the cockpit and throughout the aircraft.

“We tend to continue to repair the CRT components for use in the older platforms rather than install a whole new LCD system – saving not only cost for customers, but more importantly, aircraft maintenance time,” says Simmonds.

Craig Bries, Vice President and General Manager, Service and Support, Avionics at Collins Aerospace says the transition from CRT to LCD displays has been and continues to be very significant, because it is no
longer economically viable for suppliers to produce the components that go into CRT displays. “As consumer display products transitioned from CRT to LCD technology in the mid-2000s, the demand for CRTs declined dramatically over a relatively short period of time.”

To give some perspective, the number of suppliers building CRT components fell from over 50 in 2004 to only 1 in 2015. As the supply chain diminished, this forced display manufacturers to transition their display product lines from CRT to LCD. “For the aviation industry, this was especially significant because it gave aerospace suppliers an opportunity to look at updating other legacy equipment in the flight deck beyond just the CRTs, to provide significant improvement in the reliability and maintainability of aircraft,” Bries.

The cost of repairs for the old units far out way the cost of upgrading plus the repairs costs of the LCD is more than the CRT and they have longer leads time from the OEMs, indicates Mike Bunka, Director of Components and Accessories/Manufacturing at Avmax – “Some of the OEMs have discontinued their CRTs and issued end of life statements.” Operators expect advanced display screens to reduce maintenance costs compared to keeping the legacy CRT screens. High integration level is one of the advantages of the new type of display screens, as Liu Huijun, Hangxin’s Technical Manager – “An LCD monitor with high integration design reduces the number of potential fault points and offers significant improvements in reliability. It achieves an MTBF that’s much higher than of the CRT monitors.

Meanwhile, the CRT monitor contains a high voltage unit and other accessory components. The replacement operation of a CRT is more complex than an LCD’s, which causes high costs for CRT monitors’ maintenance – “As a result, advanced display screens drive down maintenance costs compared to keeping the legacy CRT displays,” Huijun continues.

Alia Al Qalam Al Yafeie, Manager IFE and C tells that as the demand for legacy CRT’s technology has disappeared, avionics OEM’s rely on third party suppliers to supply CRT units, there was a reduced ability to procure replacement CRT’s and their parts. “This drives the airline operators to adopt the latest flat screen technology quicker to eliminate the maintenance cost burden and obsolescence concerns associated with ageing CRT’s displays old technology.”
Maintaining an aircraft with CRT technology can be challenging, reckons Mike Sutphin, MRO Manager at Southeast Aerospace. He says a faulty CRT type EFIS display can cost from $15,000 to $30,000 to replace or repair. “With three to five of these CRT displays in a single aircraft, imagine having more than one failure in a short period of time. There is no question that updated displays and new avionics equipment in general will reduce maintenance cost after retrofit, it’s more a question of initial cost for upgrade. The MTBF is certainly improved with LCD displays. Reduced frequency of failure and reduced downtime for aircraft is certainly a consideration. However, the cost of a full retrofit is a huge factor as well. Currently maintaining some of the popular CRT displays is still more economical than upgrade.”

Simmonds from AJW feels the most significant change that has been noticed as a result of the shift from CRT screens to LCD technology is that removal rates have dropped dramatically – “Unlike LCD, the CRT portion of components wear out over time and eventually become impossible to repair, thus require complete removal and replacement. Consequently, the need for replacement declines quite significantly with LCD, which is becoming the more reliable system of the two when installed.

“However, although LCD removal rates are lower, repair costs, when they do fail, are much higher. For this reason, we continue to replace the CRT for older platforms use.”

There are several new technologies entering the cockpit from EFBs to ADS-B compliant transponders and others, so are these technologies influencing changes to maintenance and repair programmes?

AL Qalam Al Yafie says most of the avionics upgrades are driven by regulatory mandatory safety requirement such as ADS-B, ULD so airlines operators are working with aircraft OEM and suppliers to secure the required parts to retrofit in service fleets in order to comply with regulatory airworthiness requirements. “With the evolution of enhanced cockpit avionics airline operators might enjoy better avionics systems reliability and this in turn could contribute to lower failures reducing part removal rate optimising maintenance cost and enhancing flight safety,” she explains.

Mr Sutphin from Southeast Aerospace points out that one large impact will be the obsolescence of non-ADS-B transponders in their shops. He says many of the transponders that they provide bench support on will become boat anchors after January 1, 2020. “Most new ADS-B transponders are factory only repair, and outside of software updates, field repair will be a thing of the past. Another bench repair impact is radar displays. I think the time has finally come when repairing an old CRT radar indicator is just not practical. Most aircraft are already equipped with some alternate means of displaying onboard weather radar.”

The maintenance technology of equipment that’s using new technology and functions needs a long research and development process, tools and equipment, plant facilities, aviation materials, human resources allocation, maintenance data acquisition, and so on. Mr Huijun says China plans to fully complete the modification of airborne equipment and the construction of ground-based ADS-B networks by 2020, but he notes that airlines are still hesitant to install ADS-B equipment. “This would, in turn, bring a lot of pressure for maintenance enterprises.”

Some industry players have certainly observed some challenges in terms of avionics repair and overhaul. Mike Bunka from Avmax argues that the OEM’s are taking a stand by not wanting anyone repairing
“This means that OEM’s are adding fees such as a fee for an approved repair station or annual manual subscription fees. What this means to our customers is the unless we become an approved repair station, we would have to send the unit back to the OEM for repair thus causing longer lead time for our customers.”

Liu Huijun also mentions that nowadays, OEM manufacturers are also expanding the industry chain to the maintenance sector to obtain more profits. For example, he says some OEMs have successfully established repair factories in China, competing directly with existing maintenance enterprises. “In this fierce market competition, OEMs utilise their inherent technical advantages to set up technical barriers for maintenance enterprises and restrict the business channels of maintenance enterprises in many aspects, such as spare parts supply, tooling equipment, maintenance manuals, technical documents, and so on. This also means that the cooperation of independent maintenance enterprises and OEMs will likely become the main theme of the domestic component maintenance industry in the future. Otherwise, it will be very hard for independent MROs to survive.”

At Collins Aerospace, Bries notes that the biggest challenge the company is facing today is ensuring they can efficiently support the rapid growth of the international market. “As we look at the amount of aircraft being delivered to Asia over the next 3-5 years it has caused us to think differently and more strategically about our MRO footprint.”

Parts availability and manufacturers’ support is the biggest challenge for legacy products, believes Sutphin, saying today’s new products are rarely field repairable so once the legacy products fade, non-OEM repair in the field will also likely fade. “It’s understandable that manufacturers’ primary focus is developing new products not maintaining old ones. Many avionics manufacturers have either gone out of business or become insignificant because they failed to develop and manufacture new desirable products. I’m sure that juggling the commitment to support existing equipment, and the need to design and promote new and improved products is very difficult. When’s the last time you tried to get an old CRT TV repaired? Most people are probably already on their second or third generation flat screen TV.

“At Southeast Aerospace we still support a significant number of legacy products and will continue to do so as long as demand exists, and repair parts are available.”

Simmonds concludes saying one obstacle faced recently is the change and tightening of control around access to technical data and automated test equipment. “This has made technical data and automated test equipment both more expensive and more difficult to acquire. The situation is even more intense on new platforms, where the OEM’s are initially in an exclusive position.”
A rotable is a component or inventory item that can be repeatedly and economically restored to a fully serviceable condition. Aircraft operators are usually keen to reduce the burden of holding such inventory and seek cost-effective and reliable solutions to their rotable component requirements.

It’s necessary for mainstream rotable inventory practice to plan and managing appropriate inventory levels in an environment of changing operating conditions and stochastic demand – “Ratable inventory planning and forecasting is a probability game, with planning departments working to determine based on the aircraft, utilisation, route, MTBUR (Mean Time Between Unscheduled Removal) and access to pooled inventory what and where the owned inventory should be positioned,” mentions David Greenwell, VP Sales and Marketing for Kellstrom Aerospace. He says airlines will look at what they keep at outstations, what can be accessed through pooling agreements and which items they should keep with the aircraft. “Having a reliable access to pooled inventory at a geographic location so that it can be accessed with minimal operational delay is a key consideration that allows an operator some degree of flexibility and planning assistance.”

In order to calculate demand for rotable inventory and corresponding stock levels, Greenwell says Kellstrom applies statistical modelling using Poisson Distribution to determine the most efficient stocking levels to meet the pool KPIs. “We look at factors such as pool fleet size, aircraft utilisation, MTBUR lead-times or restocking lead-time and have a discussion with the customer to determine the protection level or probability of availability of a unit at a lo-

Many factors come into play when developing inventory planning.
Photo: AAR
cation to determine the optimum stock level to hold. The decision on protection level is different from operator to operator and on the component type, a small increase in risk can yield larger savings to an operator," he states.

Viktoras Baltaduonis, Magnetic MRO’s PBH Programme Manager indicates that they haven’t yet come across one single MRP system that could be used efficiently to manage, track and predict appropriate inventory levels fully, thus various tools and techniques must be combined to reach the required results.

“One way to determine a list of components which has the highest rotability and makes sense to have in inventory is to initiate a detailed analysis of statistical records,” states Baltaduonis. He explains that matching theoretical data from RSPL, MTBUR to enough actual removal data can give a close enough view of what components and quantities actually make sense to have in stock. “Once a list of mainstream rotables is composed, it can be purified by further tracking monthly, quarterly, yearly component utilisation and rotation frequency thus showing which components should be excluded (or quantity in inventory lowered), and which should be included (or quantity in inventory increased) from or to the list.”

Another group of rotables is Hard Time Components (HTC) which has a cycle of flight hour limitations after which it is mandatory to replace them; “thus it’s easier to track and plan their inventory levels. If an operator provides accurate and timely HTC component utilisation or remaining cycle or flight hours information, appropriate stock levels can be assured to meet the need,” he continues.

Developing a mainstream rotable list is hard and time-consuming work but once it’s done it helps a lot with planning and keeping appropriate inventory levels thus making the whole supply chain more efficient and saving costs, believes Baltaduonis.

The fundamentals of calculating rotable inventory demand are based on the utilisation of aircraft, the environment, statistics notes Marijus Milašius, Magnetic MRO’s Head of PBH Unit. He says for older aircraft and on condition components, the removal statistics is the most important aspect in building the inventory. “Also, the aircraft manufacturer provides recommended spare parts list on demand for operators, but it’s a chargeable service. However, it gives an initial understanding of where to begin.”

As much as removal statistics are important, HTCs have certain deadlines when they must be changed, and a maintenance pro-
gramme is a key source to determine that, elaborates Milašius. He says components, like batteries and oxygen bottles, are a part of inventory based on indications provided in the maintenance programme. “However, if one aircraft was operated in, let’s say, a hot environment like the Middle East, and then was leased by a company which operates in Siberia, the removal statistics or recommendations by OEM might lose sense.” In such cases, he explains that the practice would be to compile an inventory of these on condition components which are more expensive and not that easy to find in the market.

“Moreover, airlines are regulated to analyse the reliability of components installed on aircraft thus providing minimum time between unscheduled removals (MTBUR) statistics which provides insights and direction towards planning and managing appropriate inventory levels.”

Establishing optimum rotatable inventory levels is a constant challenge for airlines, MROs and third-party supply chain organisations, thinks Tom Covella, Group President of STS Component Solutions. He mentions that there are many factors that come into play when developing these and the utilisation of various forecasting and planning tools is essential. He reminds the constant challenge is driven by operating conditions; maintenance procedures (hard-time verses soft time) and most importantly using predicative analysis verses historical removals.

Mike Cazaz, CEO and President of Werner Aero Services feels new generation airlines have pretty much no choice but to turn to the OEMs or air-

Schedule demands are easy to forecast based on MPD, AD or SB etc requirements.

Photo: AAR
Market trends in rotatable management

Craft manufacturers for some kind of contractual support when it comes to inventory planning – “OEMs have changed their strategy of doing business lately and with major consolidations in the OEMs market, they now have control of the market without competitors. They no longer must share data resulting in diminished competition and reducing options for the operators and third-party providers.”

Cazaz says with the older generations [airlines], there is enough operating data to calculate and predict operational needs and enough inventory available in the after-market to help mitigate any potential changes in operating conditions. “In reality, operating conditions of an aircraft today are more predictable than ever before which helps in managing inventory levels. Data is the key in today’s environment,” he states.

Deepak Sharma, President Integrated Solutions – Commercial at AAR comments saying schedule demands are easy to forecast based on MPD, AD or SB etc requirements, the challenge is forecasting unscheduled demands and maintaining correct stock levels, the industry has been using various data points such as MTBUR of MTBF data to forecast unscheduled demand and recently more prognostic methods is coming in to practise.

One challenge is how demand can be pooled among multiple locations, aircraft types and airline operators. Sharma notes the key to success is choosing the right pool location (the hub) that can serve multiple operators in multiple countries and the most critical element of this is frequency and the cargo network available from the pool location.

According to Cazaz, demand can easily be pooled, the key information is the data – “Today there is enough data in the market on aircraft operations so predicting demand is almost a science. A professional and efficient pool provider is able to analyse the data and in doing so determine the size and location of the pool needed to cover each platform.”

Regardless of the operator, the effectivity of one component applicable to several aircraft of the same type is the best indication for the pooling, comments Milašius from Magnetic MRO. He suggests that when it comes to multiple locations, the best pool location would be nearby an airport with several flights of 2-3 hours length to various destinations on the continent.

Milašius continues: “Another idea, but more complex, is having a component of one effectivity which is applicable to several aircraft of the same type, and operated by different airlines, based on removal statistics and MTBUR of those airlines. Plan the removal of such a component and rotate it among these operators when the forecasted removal approaches.”

But most importantly, Covella recommends it is critical to work very closely with the operator on establishing economical maintenance practices and component maintenance intervals that will enable to maximise component reliability. “Developing an inventory model that is focused on the high demand components is critical and having the tools and visibility to make adjustments quickly is essential. STS has invested a great deal in these tools and resources, and this has enabled us to establish high service levels in many of the programmes we have established.”

In conclusion, Greenwell from Kellstrom proposes for airline outstation demands, carriers can look to share risk with similar operators and lower the cost of operation through accessing strategically located inventories through a pooling arrangement either between the airlines themselves or through a third-party inventory management specialist that will handle the logistics, repair and warranty administration.

Depending on the type of component and how critical it is deemed will determine if an airline can agree to access a pool located at a remote facility that may support a region of airports rather than a single outstation or whether a dedicated remote inventory is required. Greenwell adds that statistical demand forecasting is critical in optimising the stock policy for each location to ensure the right parts are at the right place at the right time.
AviTrader MRO: How did you get involved with the aviation industry?

Berube: When I was a teenager my brother in law was a Royal Canadian Air Force F18 pilot and was frequently bringing me at the base to look at the aircraft and chatting with the mechanics and pilots... Did not take much for me to decide to enroll in a three-year College Programme at the Canadian National Aeronautic institute in Montreal with specialty in Aerospace Manufacturing Technologies. I further studied Mechanical Technologies at University and this gave me the opportunity to teach part time classes at the Aeronautic Institute for several years between the full-time jobs in the industry. I can say I have been blessed by having the chance to work around the world in different roles within the aviation industry. I continue to learn things everyday about this industry and the latest technologies developed. I have been passionate for aviation for more than 40 years now. It’s a very interesting and dynamic industry...

AviTrader MRO: What is the best part of the job?

Berube: To be able to provide customised solutions to our customers, meet and exceed their expectations. This industry is very competitive, being able to develop true relationships and consistently deliver the best service in the industry, that’s what makes you a true partner and differentiate you from the average service provider. The Regional One team is young, I enjoy very much working with the team and continuously helping with innovation and systems used to evaluate deals and propose solutions to our customers. Being, like a coach at Regional One really make me love my job.

AviTrader MRO: What is the most challenging?

Berube: If I could predict the future on all aspect of this industry, I would be in high demand... Our industry is dealing with a lot of variables that will impact down the road our today’s decisions. Highlighting a few of them; - Future oil prices - Rate of aircraft retirement - Maintenance cost and available capacity - Airline bankruptcy risk

We at Regional One continuously balance these risks when business opportunities are evaluated. While we consider ourselves very entrepreneurial and opportunist through our transactions, we take extra care at evaluating risks. To name only a few, pricing discipline, data management and due diligence are key factors to our past, present and future success.
AviTrader MRO: Briefly, tell us about the capabilities at Regional One?

Berube: Regional One is one of the mostly fully integrated aftermarket organisations in the industry. This is a unique position that greatly differentiate us with from the competition. Having well experienced personal with the different aircraft/engine families and business processes, we are able to manage the entire end of life cycle. We like to present ourselves as the best Aftermarket “One Stop Shop” in the industry...

AviTrader MRO: What key trends are you seeing in the lease market for regional aircraft?

Berube: While the existing fleet is ageing, we continue to see the legacy platforms (out of production) like the CRJ200, ERJ 145, Dash8 still in strong demand. Large operators and startup airlines continue to find good value in leasing and operating (often offered with component support) 20-60 seats aircrafts matching specific route needs. Similar dynamic occurs with the 60-100 seaters used for higher density routes such as for the CRJ700/900, Q400, ATR and E170/175. With larger capacity aircraft, multiple class operation is also a good value and attractive as certain routes could be up to two hours flight time. The new configured CRJ550 is a great example of that. For many operators, the lease option is a very good option as they do not need to provision for big maintenance expenses, where free operating cash flow is critical. Additionally, not to worry about the residual value since older platforms present more risks associated with fuel prices fluctuation and eventual accelerated retirements. We at Regional One know very well our market and can provide the right asset for your mission and budget.

AviTrader MRO: How is the engine business progressing?

Berube: The regional aircraft engine largely represented by the CF34 engine family is an example of how the business is progressing, in fact, its booming. All shops at full capacity with induction slot dates as far as 12 months. Spares engines are in high demand, so used material is needed too. We start to see the same situation on larger engines such as the CFM56-5B/7B and the V2500A5. The next 3-5 years indicate very high influx of engines for maintenance. Again, high demand in spares and used material. Regional One recently formed an engine JV with the largest regional operator SkyWest Airlines for leasing CF34 engines worldwide. We believe the expertise and engine pooling offered by this partnership is an exceptional solution to all CF34 operators.

AviTrader MRO: What’s next in the pipeline at Regional One?

Berube: The newly formed engine JV with SkyWest Airlines is certainly a very strategic and exciting initiative for Regional One. In the coming months we will deploy our first available engines and will look at growing the pool to support the market demand. We recently purchased four E195 and all aircrafts are already on long term lease. As Regional One is always very opportunistic we continue to look for the proper asset at the right price, so we can provide best competitive solutions to our new and existing customers. Our strongest interest is in the E175/195, Q400 and ATR72. We are fortunate to have full support of our parent company Exchange Income Corporation, to fund our continuous growth.

Starting this year, we will deploy time and energy at increasing our presence in Asia where the largest regional growth will occur during the next decade. I am personally very excited about our future.
Converting to cash

Aeronautical Engineers, Inc. (AEI) is a global leader in the aircraft passenger-to-freighter conversion business and is the oldest conversion company in existence today. Since the company’s founding in 1958, AEI has developed over 128 Supplemental Type Certificates (STCs) and holds multiple approvals for its conversions, including FAA, EASA, CAAC and Transport Canada. AEI helps its customers, both aircraft owners and operators, extend aircraft life and increase the overall value of aircraft assets by continuously focusing on developing dependable, flexible and cost-effective freighter conversion offerings.

AEI’s freighter portfolio consists of a broad range of narrowbody platforms, including the 8-pallet position CRJ200 SF, the 12-pallet position MD-80SF, the 10-pallet position B737-300SF, the 11-pallet B737-400SF, and the 12-pallet position B737-800SF.

In the last twelve months, AEI announced several notable milestones. Last year, the company celebrated 60 years in business and successfully delivered the 100th B737-400SF freighter. This year, the company achieved the delivery of its 500th freighter conversion overall and received FAA certification for its new B737-800SF freighter conversion.

The B737-800SF is forecasted to be the next generation narrowbody freighter that will carry the air cargo industry for at least four decades. The B737-800SF provides operators with a substantial payload lift capacity of up to 52,700 lbs. (23,904 kg) and offers considerably better fuel burn characteristics compared to older aircraft. These aspects combined, will provide operators with improved operating economics that positively affect their bottom line.

AEI predicts that over 750 B737-800’s will be converted over the next 40 years and the company has, to date, received over 110 firm orders and commitments for the freighter conversion.

As a conversion company, AEI develops initial engineering design, provides on-going engineering support, manufactures complete installation kits and markets its freighter products globally. While AEI does not perform touch-labour, the company does have an Authorised Conversion Centre partner programme in which other MRO organisations provide touch-labour for the conversion modification and provide ancillary maintenance requirements for AEI customers. Currently AEI has four Authorised Conversion Centres, including Commercial Jet in Miami, Florida; Commercial Jet in Dothan, Alabama; KF Aerospace in Kelowna, BC, Canada; and STAECO in Shandong Province, PR, China. Combined, they provide AEI with over 10 aircraft conversion production lines.

For AEI Conversion Center partners, AEI provides training, supervision and on-going support. This process streamlines the entire installation process and assures high-quality assemblies, while giving the customer the flexibility to accomplish other required maintenance tasks.
Managing MRO invoicing can be challenging without the proper tools to oversee billing, expenses incurred, variable labour rates, and so on. This article highlights the top five advantages of managing MRO invoicing in WinAir Version 7.

No matter the industry, vocation, or level of expertise, if you are operating without the appropriate tools to complete your job, then you are working inefficiently. This sentiment is one and the same when applied to the MRO industry. For MROs, inefficient business processes result in a lack of production, economic burdens, and a variety of safety risks.

When considering MRO invoicing, the fact of the matter is that any error or incorrect process has the potential to significantly impact or even close a business. If the source of the problem is software or a lack thereof, then it is best to consider migrating to a powerful solution that will seamlessly integrate with the current work environment, such as WinAir Version 7.

WinAir Version 7 is robust software that follows actual aviation maintenance best practices and MRO invoicing processes. It will accurately and effectively manage the MRO invoicing so that you can focus efforts to bring in new business. Not only that, but the software can assist you with increasing productivity and saving money for your business. Whether you are considering a switch from a legacy system or are simply looking to enter the digital realm, WinAir Version 7 is a natural fit for tracking and managing maintenance activities, maintaining inventory control, and overseeing invoicing processes.

5. Accurate labour tracking and production management
With WinAir Version 7, you can accurately and effectively track labour and oversee production management rather simply. The software offers MROs full operational transparency so that they can better plan their maintenance activities, oversee purchasing, and manage costs.

In terms of labour tracking, MROs have instant access to information pertaining to work that is completed versus that which is outstanding, along with actuals versus estimates. This makes it easy to plan for future maintenance activities and properly manage the production cycle. So, for instance, if you find that you are undercharging for a specific service as a result of reviewing your actuals versus estimates, then you can adjust your figures accordingly to ensure profitability.

4. Ability to manage different pricing structures
WinAir Version 7 allows you to apply different pricing structures and variable labour rates to your MRO services based on the contract that was agreed upon with individual customers. Whether you have negotiated various rates for different skills or mark-ups for different classification of parts, building and applying the appropriate mark-up strategy per task or project is easy. For instance, your AOG rate, family rate, and volume-based rates are presumably vastly different from your standard rate.
In WinAir you can automatically apply mark-ups on billables such as parts, labour, and services. Any number of labour rates can be managed by skill, including setting different overtime rates. A cost structure can be applied per skillset and then the appropriate skillset can be applied to the labour estimate. You can also manage different pricing structures by applying discount strategies based upon customer relationships. All of this increases the accuracy of your estimates, and simultaneously, improves trust in your company.

3. Be more competitive by reducing costs through efficiency

Once you find savings in your maintenance budget as a result of the ability of WinAir Version 7 to accurately track labour, manage production, and apply variable labour rates by skill, you have the unique opportunity to be more competitive by passing along these savings to your customers. After all, customer loyalty increases when companies can provide savings. Additionally, when a customer compares MRO services based on price, your company will be the clear front-runner due to your ability to provide top-notch service at a competitive rate, without reducing risk to compliance.

Reducing internal costs is vital to providing your customers with monetary savings. By doing this you have the potential to boost your revenue stream, expand the scope of your services, and add new employees to your workforce.

2. Acknowledge invoice corrections

There is nothing worse than sending an invoice to a customer that is incomplete or inaccurate and subject to further cost adjustments. When invoices turn out to be more costly than the original estimate, clients feel like they have been overcharged and left out of the information loop. Often, in the MRO world, this is the result of work involving third-party repair orders with costs that are unknown. With WinAir Version 7, you can keep your customers informed and manage third-party costs with ease.

By listing all possible second billing costs, your customers will be made aware of any additional work. This will benefit your customers, as they will appreciate this level of transparency and so too will your finance department.

WinAir provides MROs with powerful invoicing functionality that won’t compromise compliance. While other MRO software providers may claim to be able to expedite processes, oftentimes this is at the expense of compliance. With WinAir, you can streamline and improve processes and still maintain compliance with aviation industry standards and regulations.

1. Invoicing in real-time

Give your customer the invoice before you turn over the keys to the aircraft. No matter whether the project is complete or still in progress, when you manage your invoicing in WinAir, you can produce invoices for your customers at any given time with up to the minute billing. By improving upon the accuracy of your invoices, both you and the customer save time and money, which can be redirected into other facets of your MRO.

WinAir Version 7 calculates invoices based on predefined mark-ups reflecting different customer relationships, which expedites the invoicing workflow and boosts overall efficiency. This means that there is no need to recalculate invoices that are recurrent, as this information is already available in the software. As a result, invoicing can be completed immediately and in real-time, which accelerates the invoicing process and enhances the customer experience.

Source: WinAir

Industry opinion
Whatever the political climate, we’ll weather the storm.

In times of great political upheaval, you can trust Avtrade to be ready for every outcome. We’ve planned ahead to ensure that whatever the climate we’ll continue to deliver the service that we’re known for - the world’s largest available component inventory, when you need it, wherever you need it.

Visit us.

We’d love you to visit our UK Headquarters. Here you’ll see our newly expanded Logistics Hub, which will take service levels to new heights, and find out how constant investment guarantees a bright future for Avtrade and global aviation.
The MRO supply chain industry gathered in the historical Spanish city of Palma de Mallorca for the Inventory Optimisation & Supply Chain Management Seminar in February. The event attracted airline supply chain managers, inventory management planners as well as technical buyers across the aviation industry.

Orsten Tamm, Managing Director at Avitrader Consulting kicked off the two-day programme with an introductory insight into operational supply chain challenges where he discussed several issues including the complexity of material flow and number of sources, the availability and quality of data and the ongoing need to reduce cost and cash outflow.

The cash sensitive commercial aviation industry is holding a significant number of inventories which significantly affects the cash position. Tamm in his presentation tackled some of the key issues with inventory holding costs. The commercial aviation industry is holding a combined estimated spare parts inventory of about $50 billion and it is estimated that the not turning surplus inventory of airlines and MROs amounts to about $7 - 10 billion. For an airline with an inventory worth $100 million, the estimated inventory holding cost amount to $7 - 12 million per year.

Day one of the event included several topics that were discussed. Paul Salwick, Manager, Logistics at Norwegian spoke on crisis management matters including AOG management, organisational aspects and solutions. The first day also analysed solutions with increasing material availability by Armac Systems and data management with Germania Technik.

The second day brought several other hot topics in the MRO supply chain. Mark Shimizu, Head of Sales and Inventory at AerFin discussed managing AOG risks, predicting AOG demands and component supply solutions during his component management talk.

Other topics on the day included expendables management and streamlining procurement processes and a panel discussion brought together experts that analysed the pros and cons of component pooling which gave attendees some valuable insight into effective pool solutions.

Mr Tamm concluded the event with some key performance indicators.
A note from attendees:

“The event was excellent and provided an important industry connect to address inventory management issues the aviation industry is facing in the ongoing business climate challenges” – Issa Al Riyami, Director – Category Management, Oman Aviation Group

“There were very fruitful presentations and panels given by experts in the field of inventory optimisation and supply chain management. The sessions were informative, interactive and funny. The participants were also focused, and many stimulating questions were raised. Thank you for organising this good event” - Ahmet Coskun, Materials Planning Manager, Turkish Technik

“We’re extremely pleased to have attended the Supply Chain seminar in Palma de Majorca. The event was very accessible and human sized, which allowed for a friendly, warm atmosphere and highly productive discussions. The content of the talks was varied and interesting, representing the opinions of a wide range of players from the MRO sector. Overall, we can highly recommend and would take part again in the future,” - Alexandre Magny, Director of Business Development, Lokad

“It was great to have a seminar focused on inventory optimisation. Very enlightening. The discursive format of the seminar combined with a concentration of experts with decades of niche experience resulted in a fantastic exchange of ideas and opportunities,” - Micheal Armstrong, CEO, Armac Systems

“The event provided good tools for anyone who wants to start working on optimising their inventory and spare parts stock and also benchmark their models with the lead industry standards; let alone an opportunity to discuss face to face with the experts on this field,” – Tariq Alsadi, Subject Matter Expert-Supply Chain Strategy, Oman Aviation Group

“A well organised event covering quite a wide spectrum of SCM topics and its potential for optimisation. Good speakers and in particular very open forum with good Q&A sessions. One panel session per day is a good option to maintain for future events,” - Andreas Kehl, Business Development, MRO Aviation Consulting
Comlux has appointed Domingo Ureña Raso as Executive President of Comlux Completion, its center of excellence in VIP completions and services based in Indianapolis. “After ten years, Comlux Completion is moving one step ahead, becoming the new reference in cabin completion and services for Airbus Corporate Jets, Boeing Business Jets and Bombardier Business Aircraft. With his industrial knowledge and leading experience in aviation, Domingo has been selected by the Board of Directors of Comlux to lead Comlux Completion together with our new CEO Daron Dryer,” says Richard Gaona Executive Chairman & CEO of Comlux.

AVIAA is growing its Customer Success team and enhancing its data infrastructure to support a widened membership of nearly 500 aircraft. The move follows hard on the heels of AVIAA’s acquisition of Convolus and the establishment of an office in Munich, Germany, headed by Managing Director Irena Deville.

AVIAA’s Customer Success Team works closely with members to help them understand the process and analytics of the cost savings they are accruing. “We advise members as they move into new sectors, whether they are transferring from Part 91 to 135 operations; adding a new aircraft type or introducing new capability that may justify adding a new pillar of spend,” explains AVIAA COO Rick Tilghman. The Customer Success team also advises members on when there are available slots in training and when best to plan maintenance visits, working on a day-to-day basis with its supply chain.

Air Transport Services Group has released that Jim Pradetto will succeed Gary Stover as President of LGSTX Services, a subsidiary of ATSG, effective with Stover’s retirement on April 12, 2019. Pradetto is currently the Vice President of Operations of LGSTX Services, a position he has held since January 2017. Prior to that he served in a variety of management roles with Aviation Technical Services, Delta TechOps, AOG Tank Tigers, and TIMCO.

Universal Avionics (UA), an Elbit Systems Company, has appointed Dror Yahav to the position of Chief Executive Officer for the company, effective April 10, 2019. Yahav transitions to CEO as his predecessor, Paul DeHerrera, retires after 25 years of service with UA. The Company’s Board of Directors accepted the request of DeHerrera to retire from his position in the upcoming month, and the Board confirmed the appointment of Yahav as his successor. Yahav joined Elbit Systems in 2001 and has been serving as Vice President of Commercial Aviation in the Aerospace Division for the past eight years.

Various management changes have been made in the international network of Lufthansa Technik. On January 25, Torsten Raabe became the new CEO of Lufthansa Technik Sofia (LTSF). Furthermore, from March 1, Benjamin Scheidel took over the CEO position from Detlev Jeske at Lufthansa Technik Shenzhen (LTS). At LTSF, Torsten Raabe succeeded Daniel Hoffmann, who was appointed Head of Lufthansa Technik Philippines after three years in Sofia. The former CEO of LTS, Detlev Jeske, joined Lumics GmbH & Co. KG in Hamburg, a joint venture between Lufthansa Technik and McKinsey & Company.

Specialist aircraft component support providers, Bii, have appointed two new Regional Directors to capitalize on a business growth trajectory that saw significant expansion in 2018. Cesar Pahl and Marco Pozzato have joined the Bii sales team to provide dedicated customer support for the regional commercial aircraft sector. Cesar Pahl will utilize his extensive experience of the Latin America region to develop new accounts and build relationships. Recently Regional Sales Business Developer at AJW Aviation, following a three year career interacting with key airlines across Central and South America, Pahl began his aviation career with Iberia as a Customer Service Executive. Marco Pozzato will primarily focus on building customer partnerships for Bii across Europe. A skilled negotiator, Pozzato commenced his seven year aviation career at Avtrade where he quickly progressed to Regional Sales Manager, overseeing four countries and thirty five airlines.

Täby Air Maintenance (TAM), has appointed Jari Järvelä as its new Hangar Operations Manager. Järvelä has a long and varied technical career, most recently as workshop manager for a major construction equipment dealer. Previously he has worked as a helicopter mechanic, providing a thorough understanding of the aviation environment. TAM is a major, independent aircraft support and maintenance company based in Örebro, 200 km west of Stockholm, Sweden.

Having been in operation since 1989, TAM has accumulated a vast experience in general support, maintenance and overhaul of small-to-medium-sized airlines and freighters, with a focus on the Saab 340/Saab 2000 family of regional aircraft. Having all the necessary approvals, including EASA Part 145 and FAA Repair Station, TAM is ideally suited to support any operation with tailor-made maintenance and overhaul as well as having the leading Saab 340 cargo conversion program.
Effective February 1, 2019, Bruno Vazzoler is appointed as Executive Vice President, Avionics Division and member of the Executive Committee of Safran Electronics & Defense. Vazzoler started his career within the Thales Group where he was, in particular, Director of the ‘Ground Surveillance Radars’ business line, Director of the Cockpit activities at Thales Avionics and then Managing Director of Thales Integrated Communication and Supervision Systems for Railways. In 2010, he joined the engineering group Segula Technologies as President of the subsidiary Simra. In 2014 Vazzoler joined the Zodiac Aerospace group to head the Electrical Systems and Cockpit Solutions division of Zodiac Aerosystems branch, which has since become Safran Aerosystems.

AJW Group has appointed Greg Hoggett as Technical Director. In his new role, Hoggett will be responsible for technical standards and best practices across all divisions of the global business, focusing on driving continuous improvement of its supply chains and delivering innovative solutions to airline MRO challenges. Hoggett brings more than three decades of aviation experience to his new role. He began his career in the Royal Air Force, before going on to hold senior management positions at GE Aviation, Tui Group, easyJet and TAG Aviation UK. At AJW Group, he will report directly to Boris Wulfsholme, Chief Strategy Officer, and will be based at the company’s Headquarters in Slinfold, West Sussex.