

# LOW COST

# & REGIONAL airline business

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## LEAP year CFM steps up



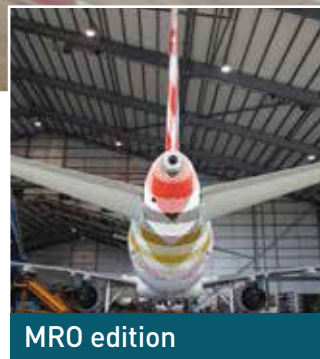
Essential connectivity



IFE revolution



Thinking regional



MRO edition



# MRO movement

Increasing OEM interest in aftermarket services, tailored support, training and real-time, paperless IT processes has shaped MRO provision over the past 12 months. **Paul E Eden** looks at how the maintenance industry is improving efficiency and adding value to operations

The latest MRO developments play into efficiency gains  
*(photo: Volotea)*

**E**merging from the confusion as Monarch Airlines and Monarch Tour Group entered into administration, the survival and subsequent growth of Monarch Aircraft Engineering (MAEL) is perhaps the MRO story of the past year. Looking ahead, David Doherty, Head of Commercial at MAEL, confirms the company's increasingly strong presence in base and line maintenance, and Aircraft on Ground (AOG), and its preparations for the future.

"We have line stations in the UK, Spain, Poland and Ukraine, supporting aircraft including the Q400, 787 and A350. Customer requirements differ, based on whether they have aircraft based at the line stations overnight or they're transiting through as an out-station. Some customers pay a retainer for

guaranteed support, while others have an on-call agreement in place and we only attend if they have an issue.

"AOG support usually comes from our main UK bases where we have more staff flexibility. AOG resolution is critical for all carriers, especially given the implications of EC261 [Passenger Rights] compensation regulations, but given their short sector and turn times, they have greater impact on regional and low cost carriers."

In July, MAEL announced the planned opening of a new component maintenance centre in Northampton in September 2018. The new centre, in which MAEL has invested approximately £2 million, is being located in Northampton as that is midway between its ►





There is growing interest in new-generation MRO management solutions (photo: CSAT)

Luton and Birmingham base maintenance facilities, and on the motorway network within four hours' drive of all of its UK line maintenance stations.

Respected throughout the industry, MAEL's training schemes are essential to its future. In mid-August 2018, Doherty noted: "We have 20 apprentices due to graduate this year and a further 40 in training at the apprentice academy. MAEL's commitment to supporting the aviation industry and upholding the training school's excellent legacy means that for the first time we are doubling our intake in the forthcoming academic year, with 22 apprentices starting in September and another intake of 22 in January.

"We also have an adult trainee programme allowing individuals transitioning into aviation from other sectors to transfer their existing skills. As part of our continued commitment to the Armed Forces Covenant, we are also working with a manpower supplier that offers a transition pathway for military personnel into the civil aviation industry. These initiatives are helping us address the imbalance in engineering skills, which has been eroded over the last few years."

Historically an industry stalwart, Fokker became a GKN company in 2015. Today, GKN Fokker Services offers aircraft and component MRO services through sites in Asia, North America and Europe. It is also part of the type certificate-holding organisation for Fokker aircraft; in mid-August, some 400 Fokker machines were supported.

Fokker's MRO presence at Seletar Airport, Singapore dates back to 1997 and the facility now operates as GKN Fokker Services Asia (FSA). Its portfolio includes regional aircraft types – Fokkers, inevitably, but also the ATR series. In February 2012, FSA became the first member of ATR's MRO network, and therefore

offers heavy maintenance, plus engineering, OEM mod-kit acquisition, special repairs, OEM airframe parts supply and other services. Fokker Techniek provides similar ATR options in the Netherlands. Meanwhile, component repair and 24/7 global customer service are available for Fokker, ATR, Dash 8, CRJ, Boeing and Airbus types through facilities in the Netherlands and US.

Fokker develops supplement type certificate (STCs) in response to emerging requirements and regulations, recent work including the development of TCAS7.1 (traffic collision avoidance system) STCs for the Dash 8 series and provision for a Class 2 Electronic Flight Bag (EFB). Recognising upcoming mandates for underwater locator devices, ADS-B Out and Controller Data Link Communications (CPDLC) GKN Fokker Services is working on STCs for a number of types, including the A320 Family and Next Gen 737s. Noting a trend where the major OEMs are keen to increase their interest in aftermarket services, GKN Fokker Services has concluded partnerships with UTC Aerospace Systems and Honeywell, for example, acting as a global channel partner for avionics and mechanical maintenance on the latter's behalf. The result enables efficient, cost-effective support for multiple types, including the CRJ and Dash 8, ATR42/72, A320 Family, Boeing 717/737 and Fokkers. It is a trend GKN Fokker Services expects to continue.

### Consolidation Solution

With its vast components business and other MRO interests, AAR's market perspective is a little different, Deepak Sharma, President, Integrated Solutions – Commercial, noting service consolidation and digital tools as increasingly important to its regional and low cost customers.

"We have several regional airline fleets under long-term contract. We have observed that many regional airlines outside North America feel their small fleet size and variations in configuration between aircraft tend to deny them leverage with the OEMs. Consolidating more services and additional equipment under one supplier, like AAR, can be more efficient and cost-effective for them. We provide flight hour services, component repair and landing gear services, which are particularly important to low cost and regional operators.

"AAR's offering is tailored to customer requirements. Virgin Australia Regional Airlines is a great example. It has three A320s, all different in engine and component configuration. Given these variations, the customer has no appetite to invest in component inventory, but we are able to provide components from our rotatable parts pools, and repair capabilities, creating a nose-to-tail solution that keeps the airline operating in a competitive market place.

"We have realised that communication and service delivery are key for regional airlines. AAR therefore offers digital tools, in combination with complex logistics and warehousing support solutions, that enable low cost and regional carriers to maintain regulatory requirements and keep up with emerging technologies." ▶

## New deal

When it comes to consolidation, the C Series deal between Bombardier and Airbus is perhaps the story of the past 12 months. Marketing the jet as the A220, Airbus confirms that, while it is busy building on the maintenance know-how and support infrastructure that existed prior to the C Series acquisition, it is also reviewing the extension of its portfolio of services to the type.

In particular, the worldwide distribution of spare parts will leverage Airbus' extensive network, with maintenance services building on those formerly offered by Bombardier. Korean Air is managing services in-house with technical support from Airbus/C Series Aircraft Limited Partnership, while European customers have access to a dedicated maintenance arrangement in place with SAMCO Aircraft Maintenance since June 2015. Meanwhile, Lufthansa Technical Training became the programme's Authorised Training Provider in May 2015.

According to Airbus, all the aircraft's major systems are performing as designed, with no particular systems issues standing out as 'critical'. 'Heavy' checks won't fall due for some time, but all A220 line maintenance has been completed as required by the certification authorities and well in excess of 70 line checks have been completed with no findings.

Doherty: "AOG resolution is critical for all carriers"  
(photo: MAEL)

## MRO IT

Reviewing the previous 12 months, Arnaud Veron, Sales Manager at Luxembourg-based MRX Systems, creator of the Blue Eye suite, observes: "We've noticed a growing, stronger willingness for operators to work with new-generation MRO management solutions. In some cases, the reason is an urgent need to replace an old system that is no longer supported, but for the most part our customers begin the transition process to benefit from our technology.

"Our real-time, paperless Blue MRO technology provides control over projects, updating their system on progress as it happens and keeping track of what has been done, while simultaneously saving them money, increasing their efficiency and improving quality."

MRX works closely with its customers, optimising its products for their unique operations and Veron chooses French regional Châlair Aviation as an example. "They began transitioning to Blue MRO over a year ago. Now they're working in a connected paperless environment and using our eTechlog in their EFB to report and automatically transfer operational and technical logs."

A relative newcomer, Veron reckons MRX competes with

the established players by developing unique new features and modules, while providing 24/7 technical support that enables customers to concentrate on their primary business. He says the key features of the Blue MRO module, including iPad-approved eJobCard paperless management of Part 145 maintenance, are typical of the leading edge offering its customers enjoy. Now MRX Systems is working with two airlines to complete a new operations management module, enhancing its eTechlog App and completing a Cabin Log App.

Headquartered in Albuquerque, NM, Ultramain Systems Inc (USI) has been supplying monitoring and evaluation (M&E) and MRO software to the aviation industry for more than 30 years. Mark McCausland, President of USI, says: "We author and publish a full suite of M&E/MRO applications plus our electronic logbook [ELB] software. The major change for us recently is that all ULTRAMAIN implementations are now paperless. We are implementing paperless M&E/MRO with three customers in Asia, and one each in the Middle East and US, while individual customers in New Zealand, Europe and Asia are implementing ELB.

"v9 Unity is the latest, paperless version of our ULTRAMAIN system. One of our live-operations customers is a third party MRO, performing paperless maintenance for its customers while still producing paper task cards – a first-in-industry event. v9 comes with mobile apps, including Mobile Mechanic, Mobile Inventory, Mobile Executive and GATe, helping airlines step completely away from paper-based systems and the inherent problems, costs and delays they inflict."

Right now, several operators are implementing v9 Unity as they start out as a paperless airline, or introduce new types paperlessly from the outset, while others are moving entirely away from paper-based systems. "MROs are going paperless as well," McCausland reports, "including HAECO, which notched up some industry firsts when it went live on ULTRAMAIN."

Ultramain Systems does all its development work in house, current efforts aiming to expand optimisation to more areas of ULTRAMAIN.

"We are enhancing our paperless capabilities and ease of use and, of course, we continually enhance ULTRAMAIN's deep and broad capabilities." Through the efforts of MRO system suppliers including MRX Systems, USI and others, and the willingness of MRO providers to exploit new-technology, paperless working will become the new norm.

"Operators are aware of what is happening in real time. Staff use mobile devices to receive tasking and record what is been done, they know what is coming and, priorities. Planners and schedulers know what is happening and if something might cause a delay, everyone involved knows instantly and can react immediately," McCausland explains.

Regional airlines always look to do more with less, while low cost carriers seek to extract the most from everything. The latest MRO developments play directly to the efficiencies and cost savings that drive success in both types of operation. ■

