LARA

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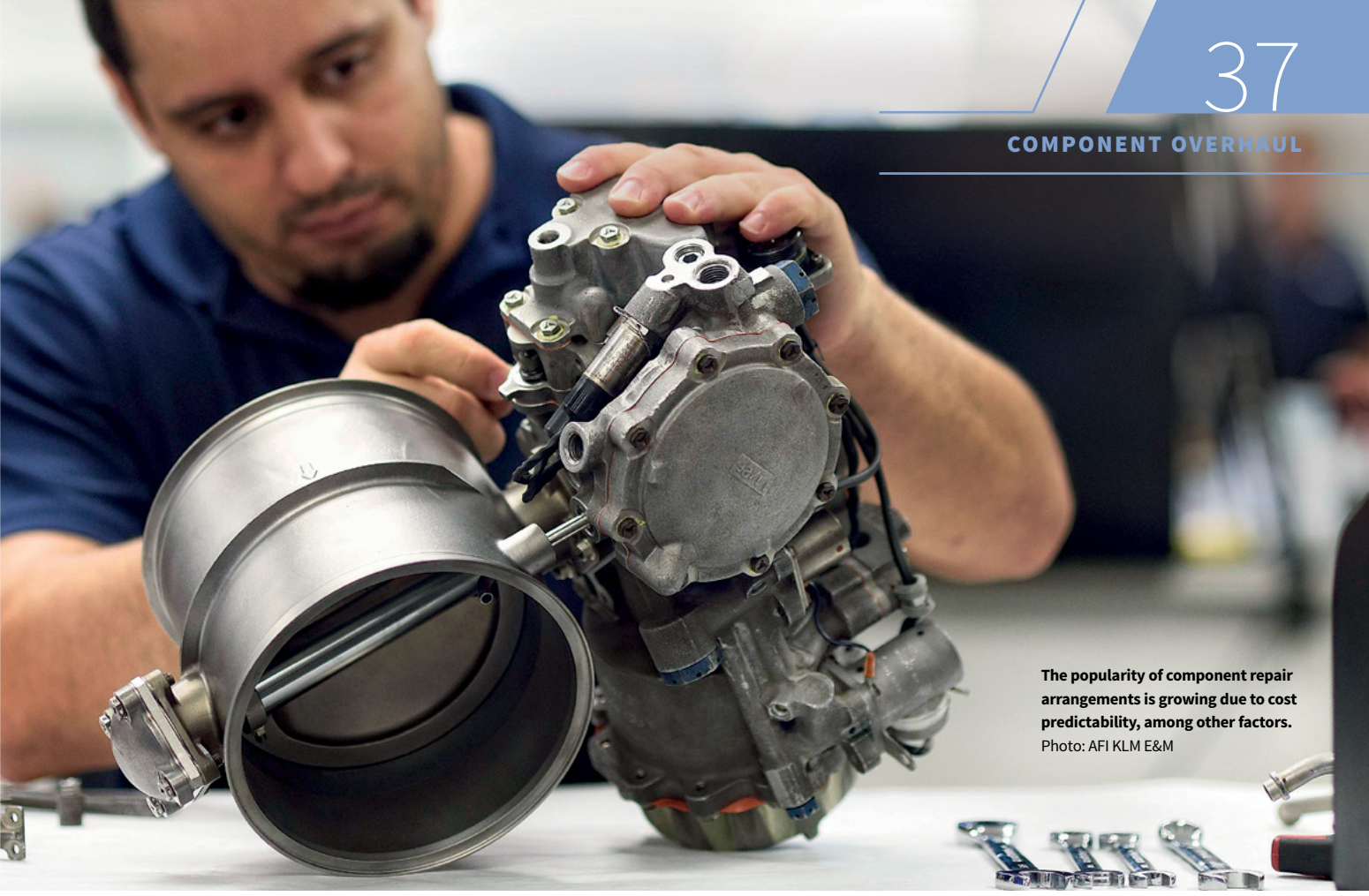
Cebu Pacific
Building back better

Component overhaul
Playing their part

Sustainability Special

Family resemblance

Deutsche Aircraft's D328eco turboprop



The popularity of component repair arrangements is growing due to cost predictability, among other factors. Photo: AFI KLM E&M

Cost control

Component repair costs have risen and the aftermarket sector has been challenged to think outside the box for solutions, including perhaps bringing cheaper alternatives back into the spotlight. Keith Mwanalushi reports.

Industry observers suggest that the restoration of supply chains will likely span several years, resulting in prolonged lead times for aircraft spare parts and components. Therefore, it is beneficial to review and update key strategies dedicated to enhancing parts availability.

Louis Mallette, Senior Vice President and General Manager of Operations at AJW Technique in Montreal, says costs are escalating for generic catalogue pricing, but contracts are being reinforced to ensure contractual caps are met.

"Given the general inflationary environment, we are seeing some very significant price increases being applied, particularly from OEMs, many of whom are increasing their repair prices as well as spare parts catalogue prices," he says.

Another trend observed at AJW is in material, which is most affected given that inflation is affecting raw materials supply all the way through the supply chain.

Mallette sees labour inflation also having an effect, albeit to a lesser extent, and several suppliers – both OEM and third party – are leveraging this to increase labour rates.

In the last 16 to 18 months, Mike Cazaz, President and CEO at Werner Aero Services, has seen a significant cost increase on the repairs of components, sometimes up to a few hundred per cent.

"That is obviously way larger than the current global average rise in interest rates, it is more driven by supply and demand rather than real cost of materials," he notes.

Other players in the market have also reported seeing increasing costs in component repairs for internal engine material, especially in engine accessories.

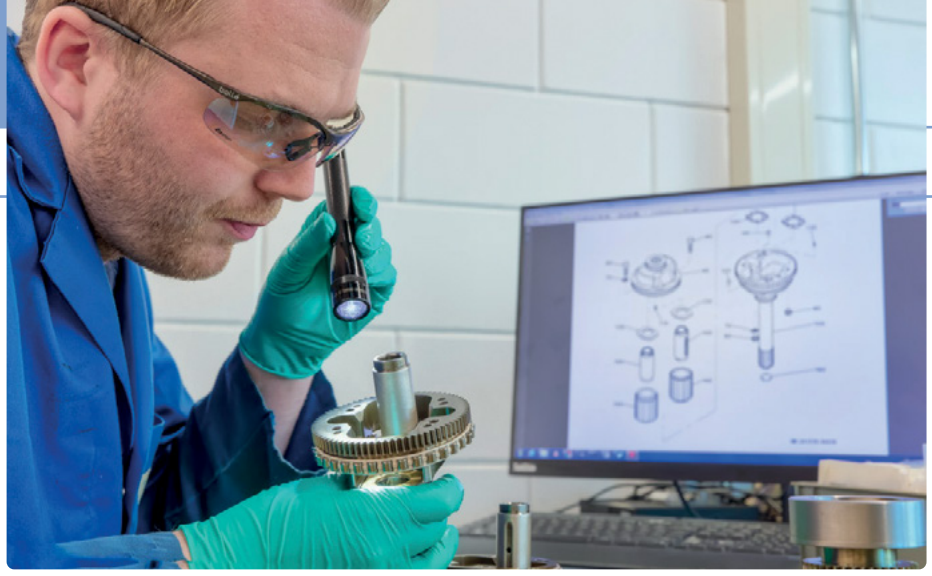
As costs rise and demand returns, the availability of components is somewhat pressured, says Eric Bron, Vice President and General Manager – Component Repair at AAR Corp, who notes that the availability of labour is limited.

SUPPLY AND LOGISTICS

MROs and repair shops must now get creative to navigate the industry material supply and logistics challenges that have increased the cost of repairs and turnaround times (TATs) while meeting repair demands.

The aftermarket supply chain has been grappling with workforce shortages, material scarcities and shipping bottlenecks globally.

At AAR, they are using a diversified supplier base to reduce risk in terms of availability of parts and continuously examining how to leverage their wide market offerings to find innovative solutions.



Feeling the squeeze: component repair costs have risen and there is pressure on availability. Photo: Fokker Services

Mike Cazaz at Werner Aero Services argues that it is difficult to navigate these challenges. "TAT due to supply chain is something we can't control," he says.

The company aims to establish relationships with MROs and work with them on discounted pricing to help reduce some costs.

Cazaz says the objective is to reduce the number of vendors to a minimum.

"As a consequence, this provides a greater amount of business to partners that appreciate the volume of work and have shown the wiliness to work with us," he says.

"Sometimes we try to combine two assemblies into one in order to use the good components from each assembly."

'ADAPT OR DIE'

At Werner, the strategy is to plan by analysing demands and the customer's last two years removal experience to ensure they have the right spares available. But as Cazaz concedes: "It has been tough, to say the least."

AJW Technique's Mallette believes that if businesses do not adapt their operations to face challenges head on, they will struggle.

"AJW Group has, and continues to, read the market by listening to our customers and what it is they need to operate efficiently and effectively," he says.

"We work to meet their individual support requirements, and in so doing we are better positioned as an independent organisation to meet repair and supply chain demands while managing costs and TATs effectively."

As an example, he explains that where suppliers are missing TATs, AJW reviews the cases of each item at a part number level.

"It's not just about banging the table and blindly demanding contractual delivery," he says. "For example, there are some cases where major OEMs have lost a hundred technicians as a result of the Covid pandemic, but they are now trying to recruit."

Material lead times have increased tenfold in many cases, and AJW is using multiple methods to continue to meet operator requirements.

"We have increased our provisioning orders and for critical components we are now placing orders up to a year in advance of requirements," says Mallette.

AJW is working closely with its suppliers (OEMs and distributors) to expedite and ensure prioritising the right material, and in parallel ensuring suppliers understand what is urgently required but also what is not required, enabling them to prioritise their resources.

Mallette says: "In areas such as chemicals and paint, we're reviewing possible alternatives when there is a supply problem with any particular products, and we're increasing the use of used-serviceable material whenever possible and if available."

AJW continues to research and find solutions to these challenges, but still predicts that the spares and people problem will last into 2024.

Arizona-based AvAir relies on demand cues from partners and customers in addition to transaction data as part of greater overall inventory management.

"This helps us identify the material that is in demand now and expected over the next few years and helps us be proactive about repairs as long lead times are increasingly common," says Kevin Lenz, Senior Vice President – Powerplants at AvAir.

According to Lenz, repair costs rises are leading to higher sales prices of repaired parts. He says: "The patterns we've seen in the last few years include longer turnaround time at repair, higher scrap rates and higher repair costs, combined with end users unable to wait the longer lead times for material receipt.

"Considering this, we have a strong focus on being diligent and consistent with proactively repairing as much as possible based on our engagement with partners and customers and data analysis."

BESPOKE APPROACH

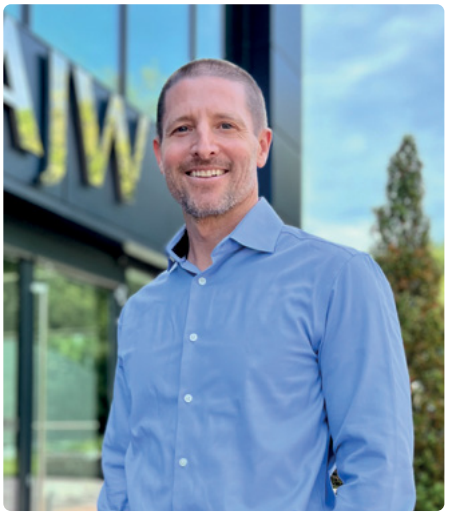
In times of crisis or unpredictable price changes, some operators will tend to evaluate longer-term component repair arrangements in a bid to lock in lower costs, and Lenz observes this trend happening now.

"We're seeing an increased interest in longer term component repair agreements from several of our end user customers across our global customer base," he says.

"A big focus for us is engagement with the customer to identify exactly what is needed and then tailor a bespoke programme that fits their requirements."

Mallette says operators thinking about long-term repair arrangements such as

Louis Mallette, SVP General Manager Operations, AJW Technique. Photo: AJW Technique



AJW's PBH (power by the hour) contracts, must evaluate and balance their commercial terms with their operational needs.

He notes that factors such as contract duration, pricing structure, consigned inventory, warranty provisions, and the reputation and track record of the repair service provider should all be considered.

"We also see a general trend continuing where customers are looking to secure pricing through the implementation of long-term fixed price or flight hour agreements," he says.

Mallette thinks the popularity of component repair arrangements has been growing due to cost predictability, cash flow optimisation, high service levels and the operational insurance policy provided by the rotable pool that AJW have continued to invest heavily into, to mitigate supply chain disruption caused by increased shop processing time.

Eric Bron, AAR Vice President and General Manager – Component Repair. Photo: AAR

Cazaz, however, sees things differently and has not observed any greater uptake in longer-term component repair arrangements as yet.

"The major problem is with the suppliers," he says. "Suppliers are not willing to offer new long-term arrangements to airlines since it is impossible to predict repair TAT and no one is willing to take the risk on that."

AAR's Eric Bron has a similar opinion and still sees diversity in the term of agreement.

"As the component MRO market was always a competitive market, customers today expect a lot of value for their money seeking reliability, quality and more recently also solutions on their sustainable goals," he says.

ALTERNATIVE SOLUTIONS

The relatively low cost of Parts Manufacture Approval (PMA-made parts) and Designated Equipment Manufacturer (DER) repairs

will evidently be of increasing interest to operators, especially in a cost-conscious post-pandemic era.

While the debate on the use of PMAs and DER repairs has been raging on for decades, it appears that attitudes are changing – for some.

At AAR, the company is seeing an increasing demand in DER (or EASA part 21) repairs as a result of supply chain disruption and the rising costs.

"I think the global industry is recognising the quality of reliability of PMA and DER more broadly," says Bron.

The pandemic may be over, but aviation operators are still focused on their bottom line and, as such, on the cost of parts, repair, and maintenance.

Mallette feels that in trying to reduce expenses to maximise profit, there is a potential demand for PMA-made parts and DER repairs, but currently not in any great form. "We are seeing some increased acceptance of PMA solutions from customers who traditionally have been PMA-averse," he says.

Mallette reckons this is being driven by parts availability rather than cost as, for the moment, PMA is sometimes the only option for operators to ensure they have Line Replaceable Units (LRUs) inventory available to support their fleets.

"There is tinkering around the edges on galley equipment or tertiary non-critical items, but in general it is only where there are long-standing supply issues that the operators are willing to view PMA as a form of mitigation, but very sparingly."

While these solutions are often more affordable than OEM parts and can provide cost savings while maintaining safety and quality standards, attitudes toward using these parts are still improving, according to Mallette. "Some operators have been sceptical about reliability and safety and the impact of these parts on aircraft performance," he says. "However, this attitude might slowly be changing aided by ongoing testing and current FAA approval."

> "Sometimes we try to combine two assemblies into one in order to use the good components from each assembly."
>
> **Mike Cazaz, CEO, Werner Aero Services**

AJW expects this to lead to a longer-term acceptance by some operators of PMA and DER solutions, once they see the potential cost savings in addition to securing material availability.

Early in the pandemic, AvAir expected a significant shift in greater acceptance of PMA and DER repaired material once the global passenger fleets came back online.

"In reality we've seen increased acceptance of PMA and DER, but not the larger shift we expected," says Kevin Lenz, who notes that the supply chain issues are creating demand for PMA- and DER-repaired parts to maintain reasonable lead times if sub-components need replacement but are unavailable at OEMs.

"That said, it's really customer-specific for us. For instance, in our partnership with GE Aviation Materials (GEAM) and in support of the GE network of MROs, interest in PMA and DERs has not increased in demand and remain unacceptable."

For his part, Mike Cazaz is concerned by the lack of demand for PMA parts or DER repairs from the leasing community, which has traditionally opposed them.

He says airlines that lease aircraft (about 60% of the narrowbody aircraft worldwide are leased) are still limited to the use of PMA or DER parts by their lessors.

"That limitation is not going away and of course does not help airlines reduce costs," he says. ■

Attitudes towards PMAs are slowly changing, aided by current FAA approval. Photo: Jet Parts Engineering