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Planes in Transition

Moving assets during a crisis

Components
Support for post-pandemic flying takes off

Cash converters
321 Precision and HAECO extend conversion capabilities

Joramco
Taking centre stage amidst MRO recovery

Growth opportunities exist in new generation aircraft components.
Photo: AFI KLM E&M

Integrated supply chain key to understanding component needs

With the aftermarket focused on reliable and efficient supply chain solutions to maintain post-pandemic flying, **Keith Mwanalushi** highlights the trends in aircraft components and material services.

MRO and component solution providers are now seeing activity in this space spring back to life. For instance, Pakistani start-up airline Air Sial signing an exclusive long-term contract with EPCOR for maintenance of APUs on its three A320s, and OEMServices clinching a multi-year deal with Etihad Airways to provide around the clock component support with spare parts availability for A320 / A321s; these just being a few of the positive developments pushing the segment forward.

In the wake of the pandemic, at Kellstrom Aerospace, the growing demand for aviation parts and services is leading them to place a high priority on making sure that stock is available for immediate shipment or with a very short lead time. "Operators and MROs are focusing on having material ready to ship to accommodate passenger demand as quickly as possible," says Michael Garcia, VP of Commercial.

Kellstrom Aerospace has prepared to support these substantial component services contracts and planned strategies to swiftly identify which components to prioritise when dismantling aircraft, and then leverage partnership contracts to speed the certification process for quick and timely delivery.

Michael Garcia, VP of Commercial, Kellstrom Aerospace

Garcia sees data as an enabler for growth with component solutions. Kellstrom provides component management services, staging rotable pools of components in strategic locations globally utilising historical data, data forecasting, and machine learning algorithms to optimise airline operations and MRO turnaround times. "Acquiring airplanes for dismantling will be a major emphasis for us in order to ensure that we have enough components available in our rotable pools to meet our component management contracts."

Garcia adds that support initiatives will be distinguished by acquisitions, as well as the expansion of analytic software

MROs have prepared to support post-COVID component service contracts.
Photo: AFI KLM E&M

Jason Reed, President, Flight Solutions Group

tools and the integration of artificial intelligence into the planning process.

Over at GA Telesis, they see the need for reliable maintenance management services that offer more parts and more repair administration at a lower cost. "In addition, operators are looking for a way to finance those over a shorter time frame so that their costs are already mitigated long term, even during a downturn, allowing them to keep their CASM low," notes Jason Reed, President, Flight Solutions Group - a division of GA Telesis.

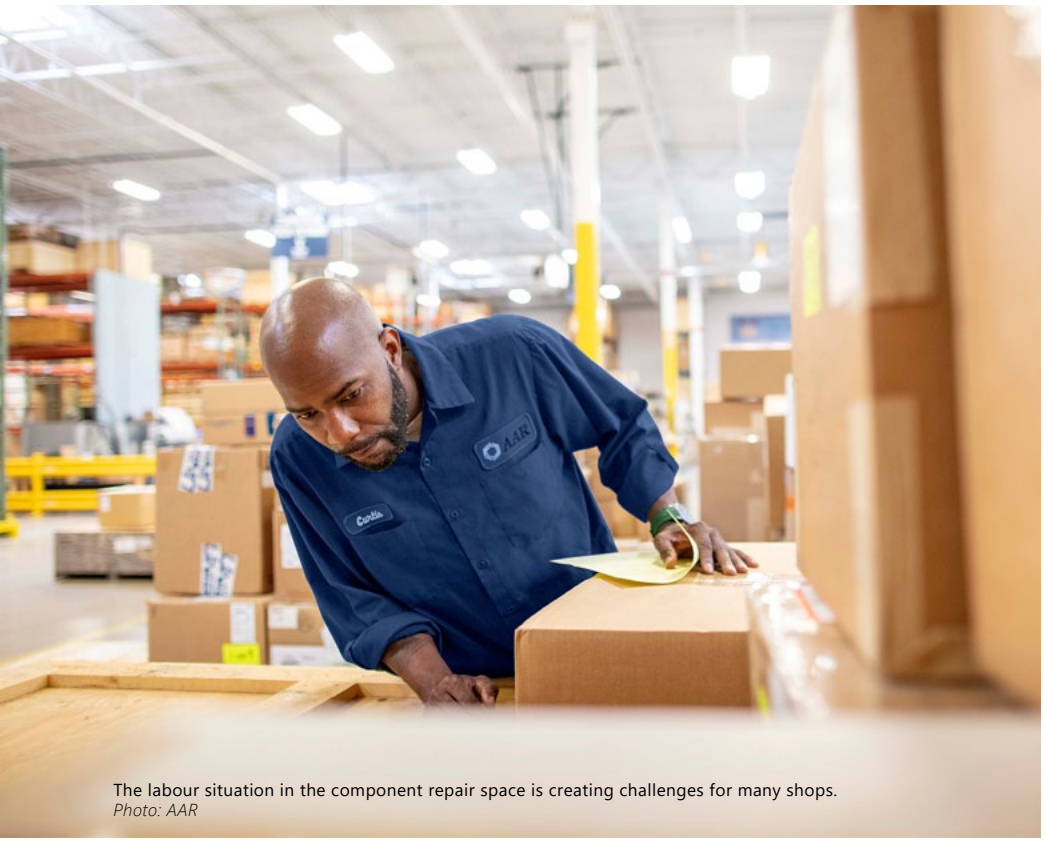
Reed reports that the 787/A350 and single-aisle AIM services are already paying dividends with operators who have switched over – "And to match, our logistics services are built-in, thus reducing the need for more extensive support staff to simultaneously maintain fleets and manage cargo," he states.

The engines team at Flight Solutions Group has been expanding product lines over the last few years, and Reed sees that trend continuing in 2022 with the addition of V2500 and GE90 lines. "In addition, we are continuing to expand our APU business significantly." Reed and his team have also driven a major new option for all PBH operators, mainly focused on 787 and A350 platforms and single-aisle fleets with the highly creative Aero Inventory Management (AIM) programme, tailored towards smaller single-aisle fleet operators.

"Essentially, operators will get all parts needed for their operation at a fraction of the cost of a typical PBH programme. The needs and changes we see already from operators in this area are in high demand. And finally, our logistics business is further ramping up, driven by operators focusing more on flying the aircraft rather than managing supply chains," Reed tells.

COVID created some upheaval in the component services space as many agreements were revealed to be overexposed to the risks of unprecedented reduction in global flying, observes Chris Fiddes, AAR VP Commercial Programmes, Consumable

> *"Coming out of the pandemic the market is figuring out how to balance risks for both operators and providers which creates opportunities for partnering rather than a traditional operator and supplier relationship."*
>
> *Chris Fiddes, AAR Corp*



The labour situation in the component repair space is creating challenges for many shops.
Photo: AAR

and Expendables. He says coming out of the pandemic the market is figuring out how to balance those risks for both operators and providers which creates opportunities for partnering rather than a traditional operator and supplier relationship. "With the uncertainty that surrounds the pace of recovery opportunities exist for suppliers who can offer flexible arrangements that minimise the contract [re]negotiation that might have to take place if flying doesn't return at a pace or volume that matches expectations."

Fiddes is certain growth opportunities exist in the new generation of aircraft that continue to dominate the orderbooks. AAR is focused more on the narrowbodies (737MAX, A320Neo) than the widebody space.

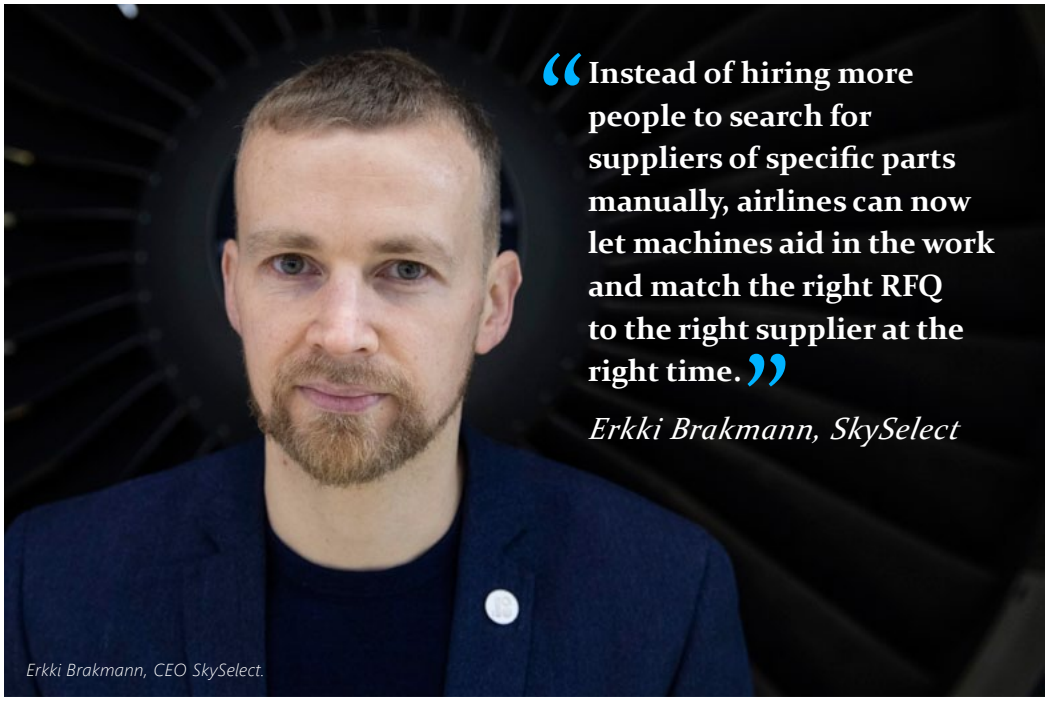
Erkki Brakmann, CEO at SkySelect notes that one of the major lessons taught from the pandemic is that airlines need to become more adaptable, agile, and efficient. He says one of the best ways to do this is by leveraging digital tools such as 'Recommendation Engine' which automates much of the parts procurement process by leveraging sophisticated algorithms – "Instead of hiring more people to search for suppliers of specific parts manually, airlines can now let machines aid in the work and match the right RFQ to the right supplier at the right time, making their incumbent team more efficient.

He says further, another benefit of incorporating such a system is that it becomes much easier to scale up and down depending on changes in air travel demand than always trying to balance the right level of labour resources.

Brakmann reckons the biggest trend currently is the continued digital transformation of the airline industry, which is especially impactful for aircraft component and parts management having been traditionally very labour-intensive and a manual process.

At SkySelect, they have highlighted one such technology: eProcurement-as-a-Service (ePaaS). Brakmann explains that the ePaaS service is poised to become an increasingly important commercial strategy for airlines and ePaaS is a technique and long-term management strategy that ensures that financial resources are used at the highest level of efficiency. "The most important feature of ePaaS is increasing efficiency and saving time. This allows airlines to stay resilient even during the most turbulent times," says Brakmann.

With operators having gone through two years of hardship, falling margins and mounting losses, now must maximise



Erkki Brakmann, CEO SkySelect.


Barry Swift, SVP Operations, AJW Group

their revenue and margin as the sector recovers - Barry Swift, SVP Operations at AJW Group says MRO solution providers who can provide high levels of availability and consistency will thrive; because like cash; repair delivery performance and materials availability is king.

Swift indicates that the conflict of supply chain constraints and increasing delivery expectations, mean that solution providers must think 'integrated supply chain'. "This involves working far closer with customers and supply chain partners, to understand the supply chain vulnerabilities that exist, and how to overcome them."

The key area of growth or focus at AJW is in ensuring that they can meet and exceed operator expectations, as they start to return to pre-COVID flight levels.

Swifts says the needs of the operators to have full component availability at a time when the supply chain is heavily challenged, post-pandemic, initially looks like an undeliverable balancing act.

"It's causing us to have to get our magnifying glass out and work with our suppliers in a far closer way then we may have done previously, for example not just understanding which components need to be carefully managed, but also really getting down to a level of detail in us understanding sub-component supply. Effectively we are at the forefront in managing one of the largest aviation volume ramp ups in history."

Consequently, Swifts adds AJW must leverage and work with the OEM partners closer than ever before – "If our partners have parts supply issues, then we collaborate and agree temporary alternate sources, whilst they get their inventories under control."

Swift also reminds that the ability to shift geographical component repair supply, to meet the demands of the different regions is another balancing factor.

Pete Allwood, VP Business Development EMEA at APOC stresses that now more than ever cost is the biggest factor and not only the cost of the part itself, but also the other costs associated with procurement, especially shipping. "Of course, service is an important factor too, but there is a lot of competition in the marketplace, so everyone is being pushed to keep overall costs as low as possible."

With the price of shipping going through the roof, Allwood feels one way to manage this is to make sure you have the right parts in the right place, at the right time. "Having dedicated stock hubs close to your key customers around the world, as we do at APOC, is without a doubt a huge advantage saving our customers both time in receiving stock as well as money on shipping."

APOC also offers a range of solutions including exchange pool support, consignment agreements, repair-on-hold agreements etc – "All of which drive down the initial cost of acquisition but still ensure availability of the parts they need at any given time," says Allwood.

One of the key areas of growth in the sector are consignment programmes. At APOC they have noted a significant increase in interest from customers asking for consignment agreements and repair-on-hold support, for instance.

Allwood says end users (airlines) or companies that provide airlines directly with support contracts, are also increasingly looking to loan stock rather than buying outright. "This isn't a new approach, as it has always been an attractive way for businesses to reduce large upfront investment and maintain cashflow, but it is becoming increasingly popular."

As the industry slowly returns to more normal levels of activity, APOC is also seeing demand for high value items, such as APUs, nacelles, etc., increase again. Repair or replacement of these components, which could have been delayed for some time due to uncertainty over COVID, are starting to reignite, Allwood notices. "Along with this, we see an increase in demand from brokers looking to stock up on these hot items, and from repair shops wanting to ensure they have enough material to support the incoming flow of repairs from their customers."

Partnerships are a win-win situation

Reed from Flight Solutions Group feels the OEM and aftermarkets will continue to converge further in the coming years. He notes that to maintain service levels with operators on service-based products, turnaround times are the single most critical item to keep costs low as a service


Pete Allwood, VP Business Development EMEA, APOC

provider. "Therefore, we are driven more towards a smaller base of partners, producing a more significant value in the overall capabilities required for our services. This allows us to negotiate a more efficient contract that includes no-cost exchanges and enables the partner to increase their short and long-term business."

The increased consolidation of the aftermarket and OEM is a win-win and can be managed with the OEMs going forward, Reed believes. "Those entities are also looking to grow their repair businesses post-COVID and readily have spares available for exchanges due to the overall airframe contract requirements when they signed up for the production line," he says.

At SkySelect, they see technology being the catalyst for a stronger and more visible supply chain, which includes real-time delivery tracking — where buyers and suppliers alike will benefit. "We are stronger together, and this automation will lead to more transparency and more inclusion throughout the process," indicates Brakmann. He feels this will grow and strengthen relationships by having more players involved, but also the right players.

It's clear that the last two years of sector turmoil has changed the dynamic in the industry, it's driving far closer strategic alliances between players like AJW and OEM partners, creating longer term strategic contractual relationships, driving them to step their game up, in terms of delivery performance.

Swift says the next tier down of suppliers are also seeing a more simplistic approach to delivery performance expectations, in summary, the market will not and cannot endure sub-optimal delivery performance going forward- "So this is causing us to make strategic decisions about a simpler and far more nimbler supply chain, those supply chain partners that can deliver will thrive and those that cannot; despite our best joint supplier development efforts; will have to be deprioritised."

From a software perspective

Chris Clements, Sales Representative, Swiss AviationSoftware

From an M&A software provider's view, it is primarily focused on integration. The AMOS community is using AMOS to manage their fleet and in turn their component planning. The high degree of control from a configuration perspective is well covered so they have a clear overview of when scheduled maintenance will be required on all components that are tracked in AMOS, whether they are installed on the aircraft or on the shelf in their stores. AMOS also takes the utilisation of the stock to another level by allocating stock to maintenance events using rule engine based logic. Available stock or parts on open orders will be allocated according to a variety of parameters such as ownership, contract conditions, shelf life and storage limits as well as the configuration of the aircraft. This means also having to consider the modification status of both the aircraft and component to ensure that the component issued to the aircraft is applicable.

By accurately managing the demand for components we then need to consider how to meet that demand and within AMOS, the material planners and procurement personnel have tools available that will propose the most ideal vendor and quantity to source and allow seamless exchange of data using SPEC2000 standards and dedicated APIs to transmit the demand to the vendors.

The requirements of our pure MRO customers are slightly different in that they are not managing components, instead they are often supplying the consumables and expendables as part of an MRO contract. The focus then turns to ensuring adequate stock without overstocking resulting in higher storage costs and risk of parts expiring on the shelf. AMOS has traditional ML algorithms in place to manage this and we now plan to implement AI to further enhance the material planning and procurement process. By taking into consideration additional parameters such as the aircraft age or even weather conditions, AMOS will forecast even more accurately the stock required allowing the procurement team to meet the demand of the business with ever greater accuracy and thereby managing cost.

Chris Clements, Sales Representative, Swiss AviationSoftware