

Maintenance Planning

Viva Air takes it to the cloud with IFS

Lufthansa Technik

Technical supply for Vueling's A320 fleet

MRO Outlook

The key trends and challenges for 2022



With indications that the MRO and aftermarket sectors are bouncing back, **Keith Mwanalushi** gathers industry leaders to discuss the key priorities for 2022 and analyse the challenges that will likely persist.

his time last year the aviation industry was in turmoil as the COVID-19 pandemic ravaged on. Looking ahead, the outlook for MRO is positive, reflecting the recovery we are seeing in airline traffic. At StandardAero, some specific programmes are exceeding expectations, whilst others are tracking the consensus - "but it is broadly as healthy as anyone could have wished for in 2020," comments Lewis Prebble, President, StandardAero Airlines and Fleets. "It is now apparent that confidence is returning, thanks in large part to those risk-mitigation measures implemented for travellers. This confidence is quantifiable both in terms of the uptick in new aircraft orders, and - within the MRO space - the willingness of operators to invest in heavy shop visits."



Lewis Prebble, President, StandardAero Airlines & Fleets

Prebble indicates that the key priorities in 2022 will be to manage widespread growth in terms of staffing, footprint and key tooling investments and to fully realise the strategic benefits of StandardAero's recent acquisition of Dallas Airmotive and H+S Aviation, especially in terms of the support of the global PW100 and PT6A operator base; and to continue consolidating a strong position in APU MRO business.

At the Kellstrom Aerospace Group, they are forecasting 2022 to be marked by continued commercial aftermarket and MRO recovery, albeit not surpassing 2019 levels in most segments until 2023. Data from Kellstrom shows that narrowbody aircraft including the 737NG and A320ceo, which represent 40% of the air transport fleet, as well as large regional jets with more than 70 seats like

the E-Jets have demonstrated the largest in-service rates, and North America and China continue to demonstrate strong utilisation and capacity in their large domestic markets.

Also, with over 72% of the global air transport fleet back in service, and less than 350 aircraft retired in 2021, the population of green time engines and components is becoming constrained for some common models forcing operators to once again plan for engine shop visits and component maintenance that in some cases was deferred. Jeff Lund. CEO at Kellstrom Aerospace says the financial pressures from the pandemic on airline liquidity have caused many airlines and MROs to minimise inventory levels and personnel and adopt shortterm planning leading to depleted stock-levels and a dramatic rise in critical and AOG requirements for parts and components.

"As airline profitability returns, we will see an increase in engines, components and aircraft scheduled for maintenance, and as aircraft have been returned to service after months of storage, unplanned maintenance is a common result," Lund remarks.

He adds that savvy airlines have discovered that quick-turn engine services for module swaps and low-cost



Jeff Lund, CEO at Kellstrom Aerospace Group



Abdol Moabery, Chief Executive at GA Telesis

strategies to increase green time of engines without the cost and long delays of heavy shop visits is an effective way of maximising time on wing protecting the bottom line.

Kellstrom Aerospace Group's wholly owned subsidiary Vortex Aviation has enjoyed a steady increase in the demand for both on wing services, module swaps and targeted workscope repairs on engines that will provide additional time on wing for engines and a cost avoidance from heavy shop visit costs

This is the first time in a long while that Abdol Moabery,
Chief Executive at GA Telesis is concerned about capacity being challenged. "There is probably about a year's worth of deferred maintenance that may result in pent-up demand. During the pandemic, GA Telesis did not reduce its workforce whatsoever; however, many of our suppliers and service providers did, so we plan to shore up our supply

chain to ensure that we are ready for the potential bow wave," he states.

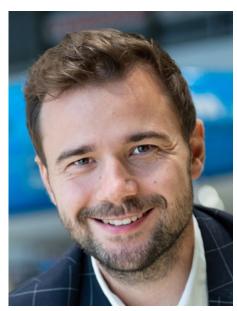
Meanwhile at Jormaco, Chief Executive Fraser Currie has seen the market for airframe heavy checks bouncing back, he is seeing an



Fraser Currie, CEO at Joramco



upturn in the number of requests being received and anticipates that the order book will return to pre-pandemic levels in 2022. "Our key priorities are to the safety of our staff and customers by continuing to closely monitor any



Derk Nieuwenhuijze, Head of Strategy, Marketing and Communication at AFI KLM E&M

potential resurgence of the virus. Another priority area is to ensure that the business is right sized to ensure we have the capacity to ramp up as needed both in terms of human resource and available hours."

Currie feels the greatest challenge will be unpredictable surges in capacity requirements from the airlines. "As business return to pre-pandemic levels many airlines are having to be somewhat reactive in their check planning."

Joramco is continuing to plan for a significant upturn in demand as to prepandemic and they also predict that the sector will see far more of an emphasis on passenger-to-freighter activity.

Derk Nieuwenhuijze, Head of Strategy, Marketing and Communication at AFI KLM E&M reckons as the recovery accelerates, MROs will need to evolve how they deliver their services from this point onwards. "We see airlines around the world emphasising proximity and adaptability. As far as flexibility goes, this demand is reflected in the growing

popularity of pay as you fly solutions. Because of the pandemic, Nieuwenhuijze says airlines are less inclined to engage in fixed contracts, and flexible solutions will enable them to better manage their recovery step-by-step and in the long term build up their defences against the unpredictability of the market.

At Spairliners they see the uptick trend continuing in 2022 and beyond. Also, they see the variety of support requests that are coming in not seen before. "Airlines have always been keen on making the most out of the assets that they are having, and especially today they tend to be even more careful before making big investments," says Taco Stouten, Head of Sales and Marketing at Spairliners.

Stouten adds: "Innovation, simplification, and risk-sharing are the key requirements from the market, which make our core priorities for 2022. And because the aircraft industry is focussing on the development of the next generation propulsion systems, we foresee that the



Qualified manpower is becoming even more crucial.

Photo: Ascent Aviation Services

aircraft that are flown today, will remain in service for at least another decade, and so does the need for MRO."

With their expertise in the E-Jet platform, at Spairliners, they see the greatest opportunities for growth to be in the Americas, because more than half of all E-jets are flying in that market. "However, the market and philosophy in the United States is completely different from those in Europe." For instance, Stouten explains that in the United

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Taco Stouten, Spairliners

States the use of DERs and PMAs in the aircraft component business is standard practice, whereas European carriers have



Taco Stouten, Head of Sales and Marketing, Spairliners

been largely reluctant to use them so far. "However, Europeans have come to realise that the biggest cost savings can be made through the use of such innovative practices and some of our customers have already expressed that they welcome this development."

Digital services and especially predictive maintenance are also opportunities that Spairliners are pursuing and that the whole value chain is investing in currently, as this is becoming a strong leverage for more efficiency in operations and costs.

"In general, I think the market is cautiously optimistic," adds Scott Butler, Chief Commercial Officer at Ascent Aviation Services. He says the airlines and operators are quickly getting aircraft back into the air, but they will not be spending the same in the MRO and aftermarket until the market has fully recovered and sustained itself.



Some challenges will persist, but opportunities still exist

Recovery might be on the horizon, but we are certainly not out of the woods yet as an industry. Butler observes that supply chains are already heavily burdened right now and there is a definite struggle to get material ramped back up to pre-covid norms. "Also, qualified manpower is becoming even more crucial than it was pre-COVID as many left the aviation sector altogether coupled with delays in new classes of mechanics.

James Bennett, Commercial Director at AerFin echoes similar sentiments saying organisations flexed resource in accordance with reduced activity levels and are now, in some cases, struggling to re-recruit and position themselves for the eventual upturn. "We are already seeing elongated lead times on component repair, and this is before the market recovers to 2019 levels, which we're expecting to be anywhere between mid to the end of 2023. This will be redressed but we anticipate more pain for all in 2022 before the supply chain

has fully recovered."

Reducing costs has always been important for airlines, but as Bennett sees it, this pandemic has brought all cost saving initiatives much more sharply into focus. "As we know material is the biggest component of any MRO event, whether engine or airframe, so naturally we see increased demand for USM being one of the big opportunity areas."

AerFin is already seeing numerous airlines reviewing existing contracts to see whether there's any way USM or reduced material costs can be provisioned for. "In addition to USM, more cost-effective maintenance options are another area that we're already working with our customers to support," says Bennett. He highlights that quick turn maintenance activity was already being asked of the industry prepandemic and was mainly why AerFin decided to launch the 'MRO Lite' service offering at its EASA/FAA certified facility - "We expect this to continue to form part of operators' future strategies."

Much of the industry supply chain



Scott Butler Chief Commercial Officer, Ascent Aviation Services

will remain fragile for at least the next 18 months, reckons Prebble from StandardAero and this will have an inevitable knock-on for MRO performance. "We work very closely with our OEM partners and customers to provide the best possible demand signal. More than ever, good communication and expectation management is paramount."

From a market perspective, Prebble says perhaps the biggest challenge remains the Asia-Pacific regional aircraft market, which has been badly impacted by the pandemic. "The gradual uptick in vaccination rates in the region will hopefully allow the sector to see a return to financial health as load factors improve, though the timing of a full recovery remains uncertain," he says.

In terms of opportunities, at StandardAero, these will likely be the same areas that have driven growth during 2021: the resurgence of the regional turbofan market, most notably for the CF34; the continued strength of the cargo market, which has had positive implications for a range of platforms, from the RB211 and CFM56 to the PW100 and PT6A; and the ebullient business aviation market, which has benefitted the PT6A and JT15D. Prebble adds: "There is still a lot of green time available on platforms like the CFM56-7B, and that is driving more innovation in fleet management and work-scoping in the short term as airlines look to defer expenditure as their balance sheets recover. We have adapted to that but expect a potentially rapid return to more conventional heavy shop visit volumes in the medium term."

Lund from Kellstrom notes that the supply of USM feed stock has become constrained on certain platforms. He says as USM is repaired, repair turnaround times (TATs) have increased dramatically due to delays in obtaining OEM piece parts in support of the repair activity. Kellstrom provides OEM distribution solutions which forecast and stock factory new OEM material for just in time availability with a 98% fill rate from stock.

"Another identified constraint has been the availability of qualified mechanics to perform repairs," Lund states. "For the aftermarket, the shortage of mechanics, regional variations on lockdown are having a significant effect on the repair TATs."

The USM market should rebound due to increase in deferred maintenance. Kellstrom Aerospace is focused on



James Bennett, Commercial Director at AerFin

ensuring the supply chain demands are met with provisioning inventory to meet the increase in demand. Also, as airlines improve utilisation, their demand forecasting of new and USM components will increase.

Butler from Ascent sees a lot of opportunity to expand capabilities in the component sector to offer a one-stop shop for operator maintenance needs. Additionally, due to costs savings and OEM supply chain woes, he feels USM will be very sought after by operators.

In terms of proximity, AFI KLM E&M anticipate the trend will point towards growing regionalisation of MRO markets. "For fleet operators, this is as much about shielding themselves from rising logistical costs as it is about implementing supply chain loops being close to the customers. This trend was already visible before the crisis but has been accelerated as a result. We think that this regionalisation of maintenance activity will be increasingly carried out via industrial partnerships that will enable the sharing of risks and capacities, combining local industrial

bases with global commercial clout," explains Nieuwenhuijze.

Moabery believes all areas of the GA Telesis business will share a significant demand increase over the next 24 months. He anticipates that over that period, the market will right-size itself, and things will trend back towards a more stable marketplace. "However, the areas we are watching carefully are the engine MRO and components sectors. There has been quite a bit of turmoil in those sectors, and as a result, we anticipate some level of volatility. We plan to be on the right side of the volatility and take full advantage of the organisational continuity we maintained during the pandemic."

Moabery stresses that GA Telesis predicted this, and as a result, launched two major greenfield projects during the pandemic, a new landing gear technology centre of excellence and GATES SPAH, a partnership with ATSG, expected to be operational in 2022. "These will serve as key differentiators, and we fully intend to continue to add high-technology service offerings," he concludes.