

# MRO

Aerospace Magazine

## Planes in Transition

Moving assets during a crisis



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This year will see a higher number of planned lease returns  
*Photo: Keith Mwanalushi*

# Managing **transitions** during periods of change

**Keith Mwanalushi** examines the asset recovery and transition services market post-pandemic and the ongoing push for digital records management.

**A**ircraft and asset transitions are a complex undertaking and even more so during times of crisis. For the aircraft lessors, the COVID downturn and the sanctions slapped on Russia by the EU, UK and US are a twofold blow as they scramble to reclaim leased aircraft out of Russia.

Experts at ACC Aviation have suggested that 597 aircraft are on operating lease contracts with Russian carriers worth an estimated current market value of just under \$15bn. And with a reported end of March 2022 deadline to get out of lease contracts, and Russia reportedly refusing to return the leased planes, the cat and mouse chase will likely drag on far longer.

This is not good news for the lessors as some of them are small time investors and will likely seek to offload their assets because they don't have the deep pockets to handle the crisis compared to the bigger players like AerCap who are reeling with the loss of revenues

from Russian customers. At the time of this writing, the saga continued to unfold.

As for the COVID scenario, during the pandemic, it was a big challenge to send inspectors from Europe and elsewhere to the country where a transition or redelivery was taking place. "We addressed this problem by hiring more local consultants than usual and making extensive use of video conferencing," recalls Jack Bos, Technical Director at TrueNoord. "In one case, we even completed the full marketing and delivery an E-190 aircraft to a new customer without having ever actually met them in-person," he mentions.

Bos says in some instances aircraft had to be put into storage after redelivery, but in those cases TrueNoord elected to perform monthly engine runs rather than put the aircraft in long-term storage. "This increases the monthly storage costs but is beneficial in preventing large amounts of component changes during the subsequent storage reactivation. This ensured that we could return the aircraft to service



Jack Bos - Technical Director, TrueNoord





Aircraft technical records are increasingly going digital.  
Photo: AAR

as quickly as possible when a new lease with a client was in place.”

The pandemic left most of the airline operators with no choice but to adopt aggressive survival tactics to address the global downturn in passenger demand. Ian Davies, General Manager at London Stansted-based Gamit Ltd believes challenges will persist in 2022, with a higher number of planned lease returns as airlines opt out of extending or renewing lease agreements. “This is evident with older aircraft technology or with airlines modernising to more fuel-efficient assets. There is little doubt that airlines will want to transition surplus assets out of their fleets as quickly and efficiently as possible. This is all against a backdrop of a reduced skilled workforce to meet this spike in demand.”

A growing number of senior airline executives accountable for managing the efficient transition of aircraft assets are leveraging the power of digitalisation to support the management of End of Lease (EOL) or Entry into Service (EIS), using new technologies in the market like ROAM to optimise project timelines. Davies highlights that the effective management of aircraft records is a critical component of any redelivery project. For example, a seven-year-old aircraft is likely to generate over 100,000 documents during its leased cycle period.

ROAM a solution by Gamit, an advanced online aircraft records archiving and end of lease platform which uses powerful automated search functions to present aircraft engineers with suggested compliance documents to support the build of end of lease status reports such as AD's, SB's, hard time, etc to comply with end of lease agreements. In fact, a recent study highlighted airline overspends relating to the redelivery of aircraft can exceed U\$2m, with a significant portion being attributed to



Ian Davies, General Manager, GAMIT

missing documentation.

A transition is a highly data driven and complex process, where correct and accurate data is the key driver for a successful and smooth transition. “Unfortunately, such data quality is regularly missed as old operators and CAMO's have seldom prepared properly,” notes Bernhard Meier, CEO AMROS Innovations and Managing Partner.

AMROS has recently launched its inhouse developed software solution LISA to manage the transition and redelivery documentation structured following the A2K standard as required by owners and operators. “This step has allowed us to improve the efficiency and effectivity of the transition processes to create an accurate dataset and assessed documentation by AMROS experts,” Meier tells.

Meier further explains that traditional document management tools are storing documentation as they are provided by MRO's and stored accordingly in date and check sequence. “Due to the massive size of MRO provided documentation, the quality and quantity is rarely reviewed completely by airlines and therefore documentation and data gaps may not be detected in due time.”

With a proper preparation of delivery documentation and its correct data combined with the status of the aircraft,

“A central, secure, and trustworthy aircraft records management solution is a critical part of any digital ecosystem. The ability to assemble, index, organise and validate airworthiness records to manage back to birth traceability, is no longer an arduous task of sorting through hundreds of pages of physical documents.”

*Ian Davies, Gamit Ltd*

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*Bernhard Meier,  
AMROS Innovations*

differences to contractual delivery and redelivery conditions become apparent and cost saving maintenance initiatives can be initiated well in advance of the transition, Meier suggests – “Such early document assessments are preventing airlines from costly activities at short notice prior delivery.”

Fresh from signing a new digital records management and technical services deal with Wizz Air, flydocs is working with operators to manage assets in line with lease return or transition requirements. André Fischer, Chief Executive Officer at flydocs throws light



Bernhard Meier, CEO AMROS Innovations and Managing Partner.

on the process saying through established API feeds to their digital records management platform, they receive aircraft configuration data from clients' M&E platforms such as AMOS and TRAX and the flydocs machine learning and AI enabled software automatically matches M&E data with corresponding documents – “By doing this in real time, it removes the additional workload to support transitions on top of daily work or daily airworthiness compliance.”

Through continuous implementation of AI into multiple areas of the digital platform, Fischer is confident of getting closer to realising the vision of making an aircraft transition a ‘drag and drop’ exercise. He says if an operator is not signed up to one of the software packages, flydocs offers aircraft transitions as one-off projects supported by engineers either on-site, or remotely.

Russel Oehms, Magnetic MRO Fleet Airworthiness Controller in Australia adds that having a good understanding of the leasing companies' requirements, and the differing regulatory requirements across multiple countries for export and import, is paramount in the successful planning and execution of this work. He says once all these conditions have been clearly identified, working through the Aircraft

Records and Dirty Finger Prints (DFP's), to ensure compliance can be accurately demonstrated with documented evidence.

“The process of working through the end of lease transactions becomes very straight forward, in order to deliver aircraft that satisfy the leasing companies and operator's requirements, and also meeting the regulatory requirements for transition to possible new aircraft operators,” states Oehms.

Oehms stresses that Magnetic MRO fully supports assisting operators with the introduction and use of modern digital aircraft records management systems – “With more options becoming available in the market for electronic records management, Magnetic is proactively and strategically aligning itself with several of the key players in the market, to be able to work with customers, both old and new, to provide practical advice that will assist them in finding the correct digital records system to suite their particular needs,” he says.

At The Aircraft Group – a division of Kellstrom Aerospace, they work directly with the asset owner prior to the transition in the planning and contractual phase to ensure redelivery requirements are well documented contractually and communicated to the technical and



André Fischer, CEO, flydocs



Russel Oehms,  
Magnetic MRO Fleet Airworthiness Controller





Navi Maharaj, Vice President, Head of Technical,  
The Aircraft Group

commercial transition teams. Navi Maharaj, VP, Head of Technical feels that is invaluable when it comes to ensuring a smooth and efficient transition by leaving nothing left to the unknown or up to "interpretation" regarding actual delivery requirements.

Maharaj stresses that fully digitised records greatly relieve the risk of lost or destroyed historical trace documents. He indicates that the Aircraft Group was an early leader in developing its own in-house digital records archiving and tracking platform called Tag Fleet Online, which has a US patented search engine built in.

Bos from TrueNoord advises to start the process at least three months before redelivery with a detailed inspection of all maintenance records. "We request that lessees upload scans of their records to an internet application that has a directory structure in accordance with the IATA document [Guidance Material and Best Practices for Aircraft Leases]. Using this structure ensures that we receive all relevant records in the first instance."

He says special attention is required for any damages and repairs that are present on the aircraft and there should be damage and repair mapping provided that shows the exact location

of each area of damage and repair. Bos continues to say the aircraft should then be carefully inspected to guarantee that the mapping is complete. "For each repair that has been conducted, there should be approved data that describes how the repair was carried out and a signed work order that shows that the repair was performed in accordance with the approved data documentation - we use specialists who conduct the reviews of these repair files."

Another area of particular attention during the pandemic has been storage records – "Without adequate storage records that show that the correct OEM approved procedures have been followed during storage, it can be necessary to send engines for shop inspection and recertification. A costly process that can easily be avoided if the right procedures and records are in place from the start of any storage time," Bos adds.

Ensuring documentation meets all compliance standards

Having the records located in a central location is key to managing an end-of lease transition project, mentions Davies from Gamit. He says most airlines have now moved across to PDF (A) file storage systems but may continue to maintain paper record storage facilities until there is a global adoption and acceptance of digitalised records by regulators. "The

scale and complexities supporting the archiving of aircraft records has led to the development of solutions like ROAM which is able to automate and streamlines repetitive business processes to provide an on-demand and easy access to stored records as well as build compliance status reports to support contractual redelivery mandates - achieved in hours rather than weeks."

Davies indicates that ROAM's compatibility with most maintenance planning software solutions provides engineering teams with the assurance that all maintenance event documentation has been verified, quality checked and stored in ROAM – "As a consequence, mitigating the risk of missing or lost documents at the time of redelivery and protecting overrun on budgets."

The digital revolution is certainly upon us. Solutions by players like AMROS will no doubt also transform the documentation process into the digital transformation era. And as the future of digitalisation continues with e-log solutions in the cockpit, cabin and maintenance, a parallel operation considering both data sources will remain over a longer period – "However a standardised processing of data and the linking of original data sources will be the key for any future digital transformation," Meier concludes.



There are around 597 aircraft on operating lease contracts with Russian carriers.  
Photo: S7 Technics