

# MRO

Aerospace Magazine

## MRO & Digitalisation

Digital transformation for MROs has long surpassed being a buzzword



### Lease Returns

Best practice for smoother transactions

### GE Digital

Unlocking value through digital solutions

### Industry Interview

Scott Butler  
Ascent Aviation Services





# Maximising effectiveness in lease return operations

Some MROs have seen an uptick in requests for hangar slots.  
*Photo: Cerdeav*

**Keith Mwanalushi** gathers insights into lease return procedures and processes to analyse the post-pandemic trends and best practice for aircraft transitions.

**T**he aircraft leasing industry has had a tough time over the last two years while navigating the challenges of the pandemic – dealing with a significant fleet in storage while also trying to find innovative solutions for aircraft operators during their financial and balance sheet recovery.

Valentin Ivanov, Vice President Technical at Magnetic Leasing indicates that the pandemic induced fleet grounding forced lessors and airlines to often make quick and spontaneous decisions, which in many instances did not allow industry participants (lessees and lessors) to properly evaluate all the possible implications and additional technical requirements due to prolonged parking and storage.

The pandemic period caused a wave of technical personnel to leave the industry, affecting airlines and Part

145 MRO organisations, and in certain instances lessors too – “all this resulted in an expected decrease of precision and



Valentin Ivanov, VP Technical, Magnetic Leasing

efficiency with regards to lease returns, which is a complex multiple-stage process requiring adequate and realistic planning,” says Ivanov.

Another major contributing factor to delays in lease returns is the disruption in the supply chain, problems with the distribution of rotatable parts, availability of consumable materials and the drastic over-complication of logistical processes, notes Ivanov. “When all three are combined they impact the required parts and materials supply timeline immensely, reduce the delivery timeline estimation reliability and drive supply costs much higher.”

At Magnetic, they are optimistic that lesson learned will lead the industry to become more efficient and leaner in lease return management and will further integrate improvements into routine processes and planning.





Additional repairs may be needed that could not have been foreseen during the original work scope creation.

Photo: Fokker Techniek

On the engine leasing side, lessees are returning engines per contractual requirements with on-wing testing or an ECM return - operator trend data reviewed by engine OEM's stating that all engine parameters are acceptable - which is a time and cost savings for lessees, reckons Anthony Spaulding, Executive Vice President at Magellan. "The issue that lessors face is receiving the trend data promptly from the lessee to approve an on-wing test well before the test and removal date to question any parameter shifts. This can be explained by

the staffing issues that airlines are facing post-pandemic, which is slowing down the records and return documents flow from the airlines."

Spaulding explains that planning for effective lease returns begins with a solid lease document at the start of the lease that clearly outlines what is required at lease return, and each party's responsibilities to have a smooth transaction. He says knowing what is needed upfront and providing the prior lease return packages on the leased asset to the new operator lets them know

“Being able to review back-to-birth trace and other time-controlled items via clear, ATA chaptered electronic files is the future state we all need to work collectively to achieve versus digging through multiple boxes.”

*Anthony Spaulding, Magellan*



Anthony Spaulding, Executive Vice President at Magellan



David Ellis – Head of ATG, LIFT

that the same level of documentation is required at lease return. “We usually reach out to a lessee 30 to 45 days prior to contract expiration, if they have not exercised any lease extensions, to go over the return process and documentation requirements to answer questions and provide any support in terms of lease return technical support,” says Spaulding.

In the current environment, both airlines and lessors are dealing with staff shortages and a relatively high activity volume. It is no surprise that records review, physical inspections, provisioning of parts to address findings or meet return conditions, and minor maintenance are all taking much longer to process. Additionally, David Ellis – Head of ATG, LIFT (GA Telesis) points to OEM support teams, third-party maintenance providers, or aviation authorities, all of whom are experiencing their own staff shortages and heavy workload constraints.

“The situation is exacerbated on the airline side in that they have not been able to fully recover some of the experienced staff lost to pandemic-related furloughs and layoffs. On the lessor side, there have been more workouts, early lease terminations, and repossession that absorb exponentially more resources than what is required of the technical staff during more stable times. These forces have pulled each party [lessor-lessee] further apart in meeting efficient lease

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*David Ellis, LIFT*

return timelines,” states Ellis.

Thankfully, Ellis indicates with most international border restrictions lifted, having staff participate on-site during the return process had significantly improved from the challenges faced when quarantine restrictions were in place.

In the planning stage, Ellis feels the main starting point is communicating the financial expectations to the customer-facing project manager, followed by creating a roadmap, then troubleshooting deviations that arise during the return process. He says this requires input from the various involved teams, namely commercial, technical, accounting, and records. “At GA Telesis, we rely heavily on evaluating financial impacts related to findings during the return process, then making conscientious decisions to maintain optimal outcomes. In addition, we highly value the relationship with our lessees, and balancing the relationship dynamics while maintaining the lease return obligations which requires an experienced and balanced approach.”

From an internal perspective, keeping the transaction budget updated as new developments arise is especially important, Ellis highlights. “Frequent status calls are the best way to communicate the ever-changing dynamics, even in light of schedule issues that come with time zone misalignment. Many of the nuances relating to lease returns can be easily lost in translation when relying solely on written communication,” he says.

At Fokker Services and Fokker Techniek, recently, they have seen an uptick in requests for hangar slots. At the Fokker Services facility in Singapore, there is

space for up to five ATR or Fokker aircraft at a time for heavy checks or minor servicing. “Over the last six months we have been fully booked,” comments Leon Kouters, Vice President Sales and Marketing at Fokker Services and Fokker Techniek. “If this trend continues, for us this is a sign that we are in the beginning phases of recovery for these types of aircraft - although there are more widebody aircraft still in storage.

“Over the past few months, we have seen some early lease returns due to repossession amongst other reasons. However, the market is still adjusting, and lessors are generally being flexible to allow airlines to get back to more stable operations,” Kouters indicates.

Leasing work has always been more unpredictable in terms of workflow, Kouters continues. “When an aircraft is inducted for a check, additional repairs may be needed that could not have been foreseen during the original work scope creation.”

Fokker Services Asia offers many different services for lease returns including heavy checks, modifications, engine changes, cabin refurbishments, painting, and structure component repairs.

In addition, as lessors do not own spares or components, they will likely look for one-stop shops capable of handling the supply chain aspect. “Although there are global supply chain challenges, our team are dedicated to search and manage all required parts during a lease return. Throughout the entire process, we stay in close contact with lessors to effectively manage slot availability and ensure everyone is aligned on timelines and progress.”





Fokker Services Asia, offers many different services for lease returns.  
Photo: Fokker Services



Leon Kouters, Sales & Marketing VP at Fokker Services Group

As Kouters cautions, if lessees face unmet return conditions, or if the lessor has challenges with a lease that is terminated early, this could result in extra costs and delays. He says at Fokker Techniek in the Netherlands, the team find the right solutions by leveraging in-house capabilities; for instance, addressing any availability issues and to guarantee that work continues. Also, the team manufactures parts on-site on a case-by-case basis with authorisation from the OEM.

At the Kellstrom Aerospace Group, through its Kellstrom Technical Services Group, they deliver a suite of solutions for both the lessor and the lessee to ease

the transition process, minimise conflicts and resolve open items, says Kellstrom Aerospace Technical Services Group's [KTSG]— John McKirdy, SVP, Technical Services.

"Working with our customers, we engage as early in the process as possible to assist in selecting the right maintainer and the right maintenance strategy to fulfil the requirements of the lease contracts and minimise asset downtime," says McKirdy.

Through the technical advisory company, The Aircraft Group, Kellstrom works with operators throughout the leasing of the asset managing and updating technical records, overseeing midlife lease inspections, and assisting in heavy maintenance management. "During the asset transfer process, we can assist in facilitating the asset transfer, arranging ferry flights, and managing maintenance bridging activities from one operator to the next," McKirdy adds.

At Kellstrom's engine MRO division, Vortex Aviation, the three facilities in Fort Lauderdale, Shannon, and Dublin provide end of lease and lease return workscope management including surgical strike hospital shop maintenance actions, borescopes, top cases, module swaps,

boroblending, C-Checks, MPD tasks, preservation and storage. Additionally, the Kellstrom Technical Engine Management organisation assists lessors and small to mid-size airlines with engine fleet management strategies throughout the duration of the operating lease, managing engine on-wing performance and that scheduled engine lease return requirements are met.

### Using technology to make lease return inspections more effective

With issues ranging from data collection to damage reports on site, technology is increasingly playing a greater role in dealing with lease returns.

McKirdy agrees that modern technologies are facilitating the ability for maintainers to collect and analyse inspection data to determine more accurately, the serviceability of the findings thus reducing time and increasing effectiveness – "Further, recent technologies in supporting the corrective maintenance actions of these findings enable MROs to cost-effectively address the serviceability requirements as well as minimise downtime," he notes. At Kellstrom's technical division they are focusing not only on the emerging technologies but also on the human side of those decisions.

McKirdy adds: "The hiring of experienced personnel and investing in the capabilities of key technical experts who must make qualified decisions about the modern data sets that are being observed contributes greatly to our customer's success and our commitment to world-leading technical advisory services."

Speaking on the pandemic period and post-pandemic optimisation, the Magnetic technical team have seen the implementation and use of remote aircraft inspection principles incorporating the latest technological advances, with a concept of simultaneous work by on-site technical engineers and remote office engineers using a live ultra-high quality video streaming capability. "Such an approach allows lessors to

minimise inspection costs during lease returns by minimising travel costs and allows better attention to details, as ultra-high-quality recorded video files can be later reviewed and questioned, which requires additional attention and checks even when evaluated remotely," says Ivanov from Magnetic Leasing.

However, Ivanov points to a downside saying the different parties involved in the lease return process often use different solutions (e.g., online spreadsheet platform solutions, online file sharing platforms), which although are conceptually similar, they still have multiple minor differences and specifics. "The use of different solutions during

the same project creates additional time wasted on access and navigation within alternate technological solutions used by the other side," he notes.

At Fokker Techniek, they are focusing on digitising aircraft data – "Any damages are registered with a tablet and transferred into our system with a data link for our customers to view," Kouters comments. He also amplifies the challenges that come with the variety of databases in use. "Right now, our industry is working with many different systems, templates, and document service providers. It will take time for a large scale uniformization of data transfer to take place. Blockchain applications may be part of the solution if

accepted by key players and of course by aviation authorities."

Spaulding from Magellan concludes saying there is still a long way to go in terms of full acceptance from lessors, lessees, and the aftermarket in providing and accepting digitised records. "Being able to review back-to-birth trace and other time-controlled items via clear, ATA chaptered electronic files is the future state we all need to work collectively to achieve versus digging through multiple boxes."

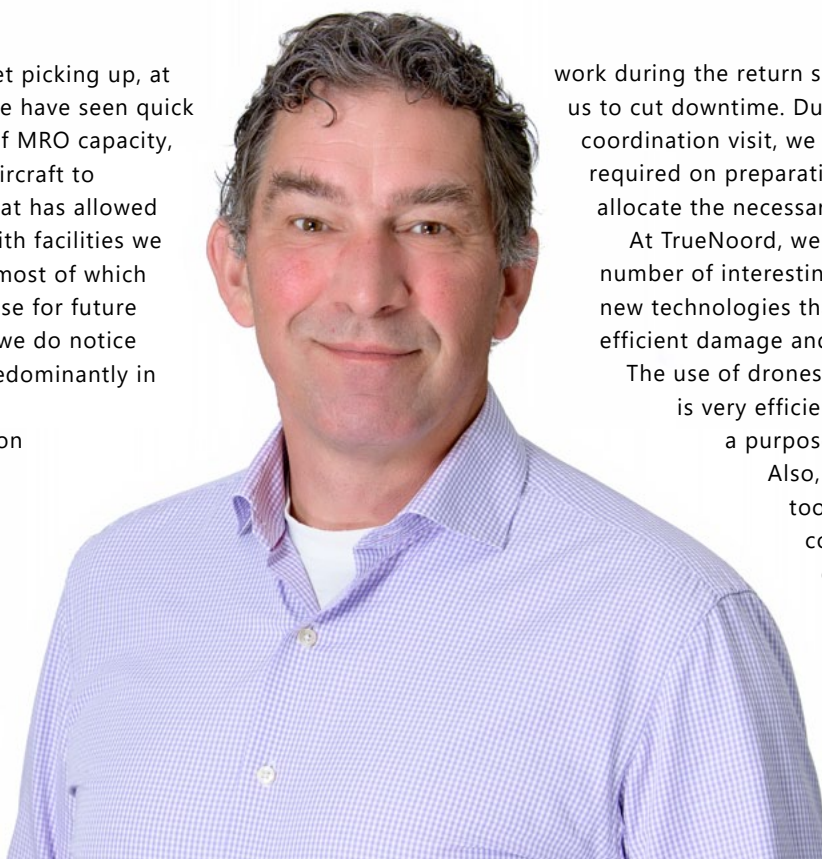
Spaulding stresses that this advancement will enable quicker aircraft and engine returns to transition to the next operator or asset sale.

## *From a lessor's perspective....*

By **Richard Jacobs**, Chief Commercial Officer at TrueNoord

**W**ith the market picking up, at TrueNoord we have seen quick congestion of MRO capacity, requiring us to divert aircraft to alternative facilities. That has allowed us to get acquainted with facilities we have not used before, most of which we are planning to utilise for future work. Other than that, we do notice supply chain issues, predominantly in component repairs.

As return coordination with the lessee is planned, we are considering the most likely options for placing the aircraft on subsequent lease and estimate the mods required for this. Oftentimes, the previous lessee cooperates in planning this



work during the return shop visit, allowing us to cut downtime. During a return coordination visit, we also assess the work required on preparation of records and allocate the necessary capacity.

At TrueNoord, we have found a number of interesting applications for new technologies that allow for more efficient damage and repair mapping.

The use of drones where permitted is very efficient and also serves a purpose in remarketing.

Also, the use of VR tools is something we consider an interesting development, although we have not applied it quite yet. We hope to investigate this further in the future.

Richard Jacobs, Chief Commercial Officer at TrueNoord