

LIFECYCLE THINKING

Aircraft lessors are looking further ahead as technical expertise, maintenance strategy and end-of-life planning become increasingly interconnected. **Craig Waters** reports

The traditional distinction between aircraft owner and aircraft operator is becoming increasingly blurred – at least when it comes to the technical management of an asset.

Aircraft lessors have always needed to understand the maintenance condition of the equipment they own. But longer asset lives, constrained MRO capacity, expensive engine shop visits and continuing pressure on material availability are making that understanding considerably more important.

At the same time, decisions once largely left to airlines, MRO providers and OEMs are increasingly being scrutinised through the lens of the aircraft owner.

Maintenance planning, engine strategy, component repair, used serviceable material (USM), technical records and ultimately the decision to re-lease, sell or disassemble an aircraft can all materially influence the return generated from an asset.

“A decade ago, most lessors would typically rely on airlines, MROs and OEMs to make the majority of technical decisions throughout an asset’s life. Today, that’s changed significantly,” says Simon Bayliss, chief operating officer at AerFin.

“With material shortages, rising maintenance costs and longer shop visit turnaround times, lessors are much more hands-on in managing the technical and commercial performance of their assets.”

That involvement is increasingly extending throughout the complete lifecycle. Bayliss says lessors are becoming more closely involved in “decisions around repair versus replace, the use of USM, engine transitions, component harvesting and teardown strategies”.

“Ultimately,” Bayliss adds, “the objective is to maximise utilisation, protect residual value and ensure every dollar invested in maintenance delivers the best possible return over the life of the asset.”

Planning further ahead

That lifecycle perspective is particularly important as aircraft remain operational for longer than might previously have been anticipated.

Liam Byrne, origination and trading manager – EMEA at EirTrade Aviation, says this is forcing lessors to think further ahead rather than relying on standard assumptions about maintenance expenditure.

“Lessors have become a lot more focused on long-term planning because



Liam Byrne, origination and trading manager – EMEA, EirTrade Aviation

aircraft are staying in service much longer than they used to,” he explains. “It’s not enough to rely on standard maintenance estimates anymore. They want a much clearer idea of when major maintenance will happen and what it will actually cost for each specific aircraft and engine.”

That also means intervening earlier in the leasing cycle rather than waiting for a redelivery to expose technical or maintenance issues.

“From what we’ve seen at EirTrade Aviation, lessors also get involved much earlier before an aircraft is returned,” Byrne says. “They try to understand what condition it’s likely to be in and work with the airline to sort out maintenance responsibilities before any problems come up.”

For regional aircraft lessor TrueNoord, that assessment can begin even before an aircraft enters service with a new lessee.

Operating environment is one of the variables that can materially alter the maintenance profile of an asset, according to Jack Bos, head of

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technical at TrueNoord. “If TrueNoord is considering leasing one of our aircraft to a new lessee airline operating in a demanding environment, we will look at an increase in the maintenance reserve rates,” he explains.

“This considers the reduced intervals for maintenance, especially engine performance restoration shop visits which can be expected in hot/harsh climates.”

The assessment can extend beyond the aircraft itself to the technical capabilities of the prospective operator.

Bos explains: “In certain cases, we also perform an audit of the prospective lessee to determine if its maintenance

organisation is well-prepared to operate our aircraft.

“For example, in a salty environment it is important to check if tooling and procedures are available to perform frequent compressor washes, especially for turboprops.”

Even the interval between subsequent audits may therefore depend on the characteristics of the operator.

It illustrates how increasingly sophisticated technical asset management can influence commercial decisions before a lease has begun, and why generic assumptions about maintenance exposure are becoming less useful.



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EirTrade Aviation

Engines change the equation

Nowhere is the relationship between technical knowledge and asset economics more obvious than engines.

For TrueNoord, whose regional aircraft portfolio includes engines from the PW100 and CF34 families, the scale of engine maintenance expenditure makes specialist knowledge essential.

“Engine shop visit costs constitute by far the largest portion of maintenance cost/maintenance reserves,” says Bos. “Therefore, it is essential that a lessor, like TrueNoord, has in-house expertise to manage shop visit intervals and oversight of the costs that can be expected for the various engine types.”

Engine expertise is equally important when an aircraft approaches the latter stages of its economic life.

Byrne explains that end-of-life planning has become a more significant

technical discipline as lessors assess whether continuing to lease an aircraft remains the optimum strategy.

“As more aircraft reach the end of their operating life, lessors are spending more time looking at whether it’s better to keep leasing an aircraft or dismantle it and sell the parts,” he says.

“Engines are a great example because they often make up a large part of an aircraft’s remaining value. Good records and careful planning can have a big impact on the final sale price.”

Rather than disassembly simply representing the final destination for an aircraft that can no longer attract a lessee, it can therefore become part of a deliberate asset optimisation strategy.

“It seems like more lessors now have a clear strategy for engine and aircraft disassembly instead of treating this as a last option,” Byrne adds.

A different technical skillset

The expansion of the lessor’s technical remit is inevitably changing the people

required to perform it. Technical competence and knowledge of airworthiness remain fundamental, but Bayliss believes today’s asset manager needs a considerably broader understanding of the economics surrounding an aircraft.

“Today’s technical asset manager needs to be as commercially aware as they are technically capable,” he says. “Ten years ago, the focus was largely on airworthiness, maintenance



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planning and lease compliance. Today, they must understand asset valuation, LLP management, repair economics, supply chain risk, aftermarket trends and MRO strategy.”

That creates a role sitting increasingly at the intersection of engineering, maintenance and investment.

“They are expected to make data-driven decisions on whether to repair, trade, lease, acquire or part out assets, often balancing technical risk against commercial return,” Bayliss continues.

“Strong stakeholder management is equally important, as success now depends on working across airlines,

lessors, OEMs, MROs and investors to unlock value and keep assets moving in an increasingly constrained market.”

It does not necessarily mean bringing every technical function inside the leasing organisation.

TrueNoord, for example, makes frequent use of consultants to undertake regular lease audits covering aircraft and their associated records.

However, Bos points out that outsourcing individual activities does not remove the requirement for expertise within the lessor itself.

“It is important to have people in-house with airline experience to manage that

process, and also to perform the audits, if required, of a lessee’s maintenance organisation,” he says.

The emerging model is therefore arguably less about lessors attempting to replicate an airline engineering department and more about having sufficient internal knowledge to interrogate information, manage specialist partners and make informed commercial decisions.

The value of the record

As physical assets have become more expensive to maintain, the records accompanying them have also assumed

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greater importance, as Byrne explains. “In my opinion, one of the most valuable skills today is being able to check, organise and rebuild an aircraft’s technical records.

“Buyers and lessors want complete records, especially for high-value parts, because they have a direct impact on what those parts are worth.”

The issue becomes particularly significant when an aircraft has passed through multiple operators, maintenance providers and jurisdictions during its life.

“As an aircraft moves between different operators over its life, having complete and accurate records can make a big difference to its value,” Byrne explains. “Technical asset management has become something that needs attention throughout the lease, not just at the end.”

Digitalisation should make that task easier, although the industry’s journey towards genuinely accessible digital records remains incomplete.

“Today, a significant amount of valuable information can still sit in scanned PDFs, with limited or unreliable search capability,” says Bayliss. “Better digital records, supported by tools such as AI-assisted search, can help teams

find the right information more quickly, reduce administrative effort and make decisions with greater confidence.”

The significance of that development is not simply administrative efficiency. Freeing technical specialists from manually interrogating documents potentially allows their expertise to be deployed much earlier and more strategically.

“For lessors, that means technical teams can spend less time manually working through records and more time applying their expertise to areas such as risk assessment, maintenance planning, asset deployment and remarketing,” says Bayliss.



Jack Bos, head of technical, TrueNoord

He adds: “Technology will not replace technical judgement, but it can provide faster access to the information needed to support better asset visibility, stronger lifecycle planning and improved return on investment.”

A collaborative asset

Greater technical capability within leasing organisations does not diminish the importance of the wider MRO ecosystem. If anything, increasingly complex lifecycle decisions make collaboration more important.

“In EirTrade Aviation’s experience, collaboration is essential because everyone involved looks at the aircraft from a different point of view,” says Byrne. “If lessors, airlines and maintenance providers communicate well throughout the lease, they can deal with technical issues early instead of facing difficult discussions when the aircraft is returned.”

Technical records provide a good example of that shared responsibility.

“Good technical record keeping is something that needs everyone’s input,” Byrne adds. “When lessors, MROs and asset management teams work together, it’s much easier to protect the aircraft’s value and avoid unnecessary delays or disputes.”

That perhaps best describes the changing technical role of the lessor. Aircraft ownership is not becoming synonymous with aircraft maintenance, but the economics of owning an increasingly expensive and long-lived asset make remaining at arm’s length from technical decisions progressively harder.

The lessor of the future therefore needs more than financial expertise and an understanding of residual values. It needs sufficient technical depth to understand how maintenance decisions made today could determine what an aircraft, engine or component is worth years from now – and the partnerships capable of turning that knowledge into an effective lifecycle strategy. ●