# **Data-enabled technologies** bolster lessors' engine management to effect major bottomline impact

Lessors are progressively utilising asset information-related enabling technologies to more effectively track engine status, location and future expectations, differentiating themselves from the competition and maximising maintenance revenue.

Ingines constitute the chief drivers of lessors' maintenance cash flows. Engine performance restorations (PRs) tend to cost more than \$2 million for narrowbody and \$6 million for widebody aircraft, with life-limited parts (LLPs) adding another \$3 million to \$6 million to a lessor's cost base. Having up-to-date information and concrete expectations for engines is imperative for lessors to sustain a formidable competitive advantage.

Zeevo Group principal Joey Johnsen explains that "lessors can use this knowledge to reduce exposure, minimise top-up liabilities and maximise maintenance revenue – it all comes down to determining information important to your company's financials and deploying the right tools and processes to derive major bottomline impact".

Lessors can significantly improve their operations through enhanced asset focus:

- having accurate and current data on an engine's status;
- being apprised of an engine's current location (ie, is the engine in shop and to which aircraft it is attached);

- producing an accurate outlook of PRs and LLP replacements; and
- developing custom dashboards to visualise engine data better and leverage this information to manage end of lease or life plans.

### Know your engine status

Shedding light on an engine's status with real-time and accurate data is the cornerstone of asset management. This strengthens a lessor's position over a wealth of facets for asset management, such as lease negotiations and portfolio management.

"When your engine data is stale, you are prone to getting blindsided by massive expenses – especially in case of repossession," says Angela Geremia, Zeevo Group's head of technical operations advisory services. "No one wants to find out last minute that a returning engine is in worse condition than expected – leading to excessive top-up liabilities and costly expenses to make it re-leasable."

Securing the engine data is no small task. It requires accurate reporting, verifiable data entry and buy-in from the



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**Angela Geremia**, Zeevo Group's head of technical operations advisory services

relevant team members. Lessors implement a number of tools and procedures to obtain accurate engine data:

- create standardised utilisation report templates for lessees and establish a utilisation portal integrated with an asset management system to automate data entry and minimise errors;
- establish automated data validation and notifications to identify false data entry;
- develop repeatable training material to streamline onboarding for roles with high turnover;
- implement and maintain a robust records management system to enable stakeholders to go back to the source; and
- design custom user-friendly interfaces to empower greater buy-in from responsible parties.



Custom dashboards that use visuals to filter out the noise and illustrate the information most pertinent to the decision makers

# Know where your engines are

A lessor's ability to track an engine's location is only as good as the information received and captured within an asset management system. Defined procedures, workflows and notifications can keep the relevant stakeholders apprised, reducing the need for last-minute investigations of where their engines are or will be located.

Lessors utilise several methodologies to achieve comprehensive engine tracking:

- use lessee provided records, such as certificates of release and utilisation reports, to initiate workflow notifications for technical managers to keep them in the loop for engine status/location changes and alert them when they need to reach out to a lessee for clarification;
- establish procedures for obtaining intelligence on a lessee's fleet plan to devise a strategy for engine management that can help a lessor better understand what they are remarketing and help the lessee manage their fleet to avoid costly engine PRs;
- integrate in-house systems to keep the finance, technical and accounting teams on the same page.

### Know your engine outlook

Forecasting solutions can be complex, but with the right tools and data lessors can provide solid maintenance forecasts to

equip decision makers with the pertinent information allowing them to define an optimal fleet plan. "Having an event forecast with all of its associated cash flows enables lessors to pinpoint the best deals and avoid wasteful expenses," says Ethan Ross, Zeevo Group's senior manager and in-house maintenance forecast expert. "Forecasts boost the understanding of upcoming expenses and top-up liabilities; for example, the expected condition of an LLP stack at return. They also inform fleet plans to maximise reserves balances so that excess balances can be released to revenue."

Some essential elements to include in an engine forecast are:

- well-defined assumptions, including PR costs, mean time between repair (MTBR) and average utilisation;
- tools or systems integrated directly with asset management system; and
- baseline and "what-if" scenario forecasts.

# Visualise your engine outlook

A key tool for robust engine data and maintenance forecasts is custom dashboards that use visuals to filter out the noise and illustrate the information. most pertinent to the decision makers. A comprehensive strategy for engine placement with solid footing allows a lessor to optimise its asset management, reducing costs, increasing revenue and enabling greater flexibility.

A number of business intelligence tools exist that pull data from multiple systems to create custom graphs and charts to:

- easily visualise your engine outlook;
- identify areas of risk and unnecessary shop visits to avoid:
- determine strategies for engine swaps to maximise each engine's life; and
- allow lessors to refine future strategies further and learn from past mistakes by showing how expectations changed between year-start and year-end.

### **Build your fleet plan**

At the center of any aviation leasing company's business is asset management — and engines are where a lessor stands the most to gain or lose. Zeevo Group has been working with a number of global leasing companies to identify and deploy business intelligence tools that are tailored specifically to their needs, boosting their forecasting capabilities and bolstering their day-to-day decision-making.

Johnsen concludes: "Having a robust fleet plan allows a lessor to enter each year in a position of strength, limiting those costly surprises along the way. By implementing some of these tools and procedures, lessors can step out of the dark and illuminate the future." \(\Lambda\)



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