aviationbusinessnews.com
MARCH 2023 • VOLUME 25 • ISSUE 2

Keeping the world's fleets flying

MRO Management

MAINTAINING A CLASSIC

Why the CFM56 is entering a new era of post-production support

SEEING THE FUTURE
Closer ties and more standards in predictive maintenance

ELIMINATING DANGER
Hazmat shipping is not the Wild West

SMART TOOLING
How to use the best tools to their best effect

FUTURE FIT

The road to transition needs one eye on the past, the other firmly focused on the future. Can the CFM56 engine MRO specialist Aero Norway continue to support customers' legacy engines with increased efficiency as they manage their own evolution to embrace the new-technology LEAP models? "It's natural that we do," says chief operating officer **Neil Russell**

"We are renowned for CFM56 work and are pledged to support customers as they transition from -3 to more -5B/7B types over the next three years"

Neil Russell is chief operating officer at Aero Norway

Aero Norway is multi-release FAA, EASA, TCCA, CAAC, GCAA, DGCA and ECAA certified. For more information visit aeronorway.no

Aero Norway is an independent engine MRO provider for CFM56-3, CFM56-5B and 7B engines, and we are focusing our energies on a strategy that will build on stability and investment to deliver our LEAP 1A and 1B services. This transition has been underpinned by a rigorous evaluation of processes and procedures in all areas of the business, from the development of our team to the augmentation of our industry-renowned capabilities. You need the respective competence, and experience truly adds value as repairs become more complex.

Engine upgrades to the narrowbody aircraft of Airbus and Boeing have created an enormous impact over recent years, lengthening the lives of airframes which continue to be central to air transport. While the CFM56 from CFM International has begun to make way for its LEAP engines on both the A320 and the 737, there is still a vast MRO market for the former powerplant. So independent engine MROs like Aero Norway need to not only manage on-going maintenance and repair programmes to support the record-breaking CFM56 engine family, but also have a streamlined process in place for its successor, the LEAP engine range.

In addition to operational investment in LEAP, Aero Norway is looking to further augment our -5/-7 customer portfolio

1

whilst maintaining our -3 customer-base *and* increasing our competitive edge. The CFM56-5B is the engine choice of the global A320 family due to its high reliability and durability, and the CFM56-7B is exclusively powering the 737 NG – making it the most popular engine combination in commercial aviation.

It is a fact that the CFM56s are longer in use than expected so demand for supporting engine MRO services is increasing and this is unlikely to change before 2025. The -5 and -7 have performed particularly strongly on-wing, leading to delayed shop visits, and as a result of the pandemic and ensuing supply chain problems, operators may struggle to get their engines into the shop over the next year or so.

2

“Developments in technology are important to us and we are moving to being fully paperless via the digitalisation of all processes”

The LEAP engine, which only entered into service in 2016, is projected to be due for heavy maintenance during this year at the earliest.

Bringing down the cost of ownership

We work with customers to understand their concerns and goals for each individual repair, whether their focus is on cost, performance or build-life, for example. Our engineers then develop workscopes that will provide maximum efficiency and contribute towards longevity of the engine in the most economical way possible. It is interesting to observe that, despite its longevity in service, new repair techniques and processes for CFM56 engines continue to be added. We are constantly evaluating and implementing new repair capabilities that will benefit our customers.

It is almost always more economical for the end customer, and more profitable for the MRO provider, to repair a part rather than replace it. It’s all about balancing the customer’s expectations on turnaround time, price, and pedigree of the parts installed in their engine. Crucially, our business model is based on core-performance restoration but because we are an independent engine MRO we are very agile and develop flexible workscopes to suit individual customers. We know what is needed and we keep those parts in stock for scheduled repairs. We maintain our inventory as low as possible and the stock we hold is predominantly USM. This reduces costs for customers, minimises any supply chain issues and is perceived as better for the environment as it ‘recycles’. Aero Norway also has an active trading programme, including the buying and selling of engines; increasingly these are -5 and -7 models.

From an MRO perspective, CFM’s approach is unique for an OEM because their support model is open and competitive with partners like Aero Norway. The higher degree of competition creates a channel for used serviceable parts. MROs and airlines seek out these used parts to reduce maintenance cost, and the bidding market for such parts drives a high salvage value for engines. Airlines, lessors and investors all benefit.

With production gradually switching from a majority of CFM56s per year to more LEAP engines built each year, there are many improvements which airline maintenance departments and independent MRO suppliers will notice as a result of LEAP family engines having been designed for better maintainability and cost management.

A number of our existing customers are adding the LEAP engines to their fleets, and we want to continue to service those customers. Aero Norway is renowned for delivering exceptional EGT margins so when we look at the maintenance of these next generation engines, we will adopt the required procedures on the technology side. All developments in technology are important to us and we are moving closer to being fully paperless via the digitalisation of all processes. This will make us faster.

The company put extensive measures in place during 2020/21 to ensure that we were well placed to flex with prevailing market forces post-pandemic and able to sustain our commitment to fast turnaround times. This included an innovative fast-track inspection lane for specialised workscopes enabling our technicians to move much more quickly and deliver exceptional turnaround times across many modules. This innovation has become very successful and has now become part of the ‘Aero Norway process’.

There is a huge shortage of skilled labour across all MRO operations, and we predicted this would happen. Fortunately, we developed a strong apprentice scheme programme and this is now yielding value because we have fully trained engineers lined up and ready to work just as some of our older people retire.

Home-grown skills are very important to Aero Norway as we direct some of our focus towards the induction of LEAP 1A and 1B engines. We have no plans to enlarge our global footprint, just to continually improve what we already have.

1. Aero Norway has developed a strong apprentice scheme programme
2. The company will continue to support CFM56 engines but is also committed to bringing in LEAP support programmes