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TRIMMING DOWN THE TURNAROUND

With the demand for engine maintenance and repair increasing, in a Q&A session **Ed Hill** speaks to Rune Veenstra, chief business officer at engine maintenance and repair specialist Aero Norway, about its capabilities to help quicken overhauls.

Can you give us some background about Aero Norway, its history and the services and capabilities it provides?

Aero Norway AS is an independent engine MRO specialist. We pride ourselves on providing a competitive turn-around-time, enhanced performance indicators and exceptional and proven industry recognised exhaust gas temperature (EGT) margins. Over the past 25 years we have specialised in CFM56 engines, particularly focusing on the CFM56-3, CFM56-5B and CFM56-7B with a maximum capacity of 120 engines per year.

In 2013 we successfully completed the purchase of Norway Engine Centre, located in Sola, Norway from Pratt & Whitney. Our state-of-the-art facility delivers combined airline operational and engine maintenance experience with powerplant expertise and resources. We are presently operating in a two-shift system with 140 employees and we are forecast to ship 84 engines in 2018.

What are the demands from operators when it comes to servicing aircraft engines? On average how long does it take to turn an engine around?

The demand for servicing aircraft engines is high and consistently increasing, we ensure that we use the most modern, up to date equipment and technology meaning that all maintenance and repairs performed in our workshop, on wing, or undertaken off-site by specialist repair vendors are implemented with precision to the highest possible standard. On average, our engine turn-around-time (TAT) is 55 days. We view this service as outstanding in comparison to our competitors.

To what extent is manufacturing and repair part of your business? On average, what percentage of a refurbished engine will contain new parts?

Aero Norway do not manufacture engine parts, instead we buy the parts from the engine manufacturer. The amount of new parts going into an engine often depends on both our workscope and the requirements of customers.

We have a 'repair', rather than 'replace', mentality at Aero Norway. Over 500 part numbers are repaired in-house, providing cost-benefits to our customers. Our highly-experienced workforce is trained in OEM processes. We find that while some of our customers prefer new parts and some repair, others would rather choose overhauled parts. Aero Norway supports all options and we are flexible providing personalised programmes for each individual customer.

Does automation have a role to play in the servicing of engines? What other methods are you exploring that might increase the rate at which engines are serviced?

We set up smarter ways of servicing engines by using Lean tools to improve flow and capacity. Our modern engine facility is streamlined for maximum workflow efficiency and lean processes.

What areas of engine design could be improved to help with maintenance? How do you work with the OEMs so engines can be serviced more easily?

ABOVE: Aero Norway specialises in servicing the CFM56 engine family

BELOW: Rune Veenstra, chief business officer of Aero Norway

LEFT Aero Norway has a dedicated apprenticeship programme

BELOW More than 500 part numbers are repaired in-house

Aero Norway has a programme formulated from the OEM workscope planning guide, which we've incorporated into our engine maintenance programme. We have a good relationship with our OEMs and we work alongside them to support our customers with both part and engineering issues, these relationships are rigorously reviewed to maintain quality and cost-savings which are passed on to customers.

Keeping track of components, servicing tasks and maintaining traceability must be vital with complex jet engines. How do you manage all the data involved in an overhaul?

Aero Norway uses an ERP system combined with a planning tool which tracks all information required. As the company grows, we process more parts and generate more data. So, in order to improve our system and add features we are continuously working with our ERP company. The data is not only used to manage the engine overhaul, but it allows us to analyse and therefore improve processes. In addition, we are further developing our planning system to ensure the information is more visual and has improved links with the ERP system.

How do you assess what servicing requirements are required? What is the balance between adhering to a maintenance schedule and identifying faults during an inspection?

By working directly with the customer to identify the conditions and requirements for the engine overhaul, this allows us to create a proposal for the servicing requirements upfront during an engine shop visit. Occasionally if there is an unplanned visit, we will discuss the requirements and what is needed with the customer. When an engine is in the shop, it is still possible to find faults that require further disassembly than originally planned, but this depends on a variety of factors.

To what extent can engines be upgraded with design/component improvements during your servicing? Is this allowable or do certification requirements mean engines have to adhere strictly to the original design of components, materials and specifications?

As an engine overhaul shop we do not have approvals to re-design parts or components - we need to adhere to parts made to the original design. The engine manufacturer does release new parts or engine design changes which improve the engine in terms of safety, reliability or performance and we integrate those.

What are Aero Norway's plans for the future?

In the coming months we plan to increase the amount of engine overhauls we do and continuously improve to meet our customers' needs. We also plan to potentially introduce a new engine type to our facility.

As our company grows we have plans to expand our workforce. Having recently just employed two new members of our senior management team we are now focusing on growing the apprentice scheme working with the Norwegian government. Later this year seven more determined young people will join our current team of ten apprentices, who all enrolled in 2017. Aero Norway is committed to sharing knowledge and deepening the expertise of our resource pool.

http://aeronorway.no