Issue 10/2024



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## Multi-year contract with Lucky Air for LEAP-1A engine maintenance



We have signed a multi-year contract with Lucky Air to provide maintenance for CFM LEAP-1A engines at our Singapore facility, focusing on highpressure turbine module distress. This agreement builds on the strong partnership we have had with them since 2021 in servicing their CFM56-7B engines.

Read More

Winning Asia MRO of the Year – Airframe at the MRO Asia-Pacific Awards 2024



We clinched the Asia MRO of the Year – Airframe award at Aviation Week's MRO Asia-Pacific Awards 2024, reflecting our commitment to service excellence. Moving forward, we will continue to leverage our bundled MRO solutions and innovative technologies across our global network of facilities to meet customers' growing needs.



# Featured ArticleTransforming engine MRO through robotics and automation (Part 2)

(This is Part 2 of our article for October). Part 1 can be read in the September 2024 issue.

To meet the aviation industry's ever-changing needs and challenges, we actively embrace the latest technologies and tools to deliver services with the highest possible standards. As part of leveraging smart solutions such as robotics to execute complex repairs and enhance workplace safety, we strive for greater human-machine collaboration by empowering our employees to work better with technology on the shopfloor.

### **Maximising Productivity Gains**

Our metallurgy laboratory has undergone game-changing transformations in recent years with the adoption of robotics and automation throughout the metallographic analysis process.

In the past, technicians would manually cut small samples of metal coupons for microstructure evaluation. These coupons would then be mixed with resin, hand-poured into a mould and cured for hours before being ready for inspection. Even then, these samples had to be grinded with different grades of sandpaper to prepare the coupon surfaces for a proper inspection. Since the introduction of automation, well-programmed robotics handle this entire workflow, creating coupons and swapping between grades of sandpaper precisely and effortlessly.



We are also developing a transformative intelligent hardware sorter, which utilises AI and machine learning to autonomously identify and sort engine components for their respective maintenance and repair procedures, while simultaneously logging their conditions into a digital database. This innovation is projected to save up to 30 man-hours per engine, optimising time management for our technicians.



#### Synergising our Workforce with Technology

With the rise of advanced technologies such as AI, we see new opportunities in maximising the potential of human-machine collaboration. By empowering our teams to synergise with technology on the shopfloor, they can make informed and strategic decisions that enhance operational effectiveness. With projects spanning AI and data analytics in the pipeline, we anticipate a significant reduction in TAT by 7.5 days, translating to approximately 14,088 man-hours saved annually in our engine MRO operations.

Our commitment to harnessing technology and innovation remain pivotal in our transformation roadmap, especially as fleet operators seek dependable and effective partnerships with MRO providers during their transition to next-generation CFM LEAP engines. As Tay Eng Guan, our SVP and Head of Engine Services, emphasises, "We are committed to providing the best support for LEAP operators within Asia. We take pride in consistently delivering customised engine solutions of impeccable quality to our customers, ensuring proactive planning and expedient turnaround time."

By capitalising on human-machine collaboration to stretch our capabilities, we are able to provide our customers with the highest quality products in the shortest turnaround time.

Have a suggestion? Engage with us here!

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