MONITORING HUMIDITY IN RETIRED C130 AIRCRAFT ENGINES CASE STUDY

A large Aerospace and Defence company in East Anglia discovered Pathfindr at a trade show and has since worked together to replace their manual maintenance processes with smarter ones.

Background

The aerospace company is contracted to maintain a retired fleet of C130 aircraft before they are sold. Traditional methods involve service engineers manually inspecting environmental conditions inside protective covers, reporting their findings, and taking corrective actions if needed.

The Challenges

Manual inspections are inefficient, timeconsuming, and prone to human error. Additionally, the outdated method only provides occasional readings, which may delay necessary actions like replacing desiccant bags. High humidity inside the covers can lead to corrosion risks.

Our Solution

Our solution involved deploying a minimal infrastructure setup. Smart GPS units were placed on each wing to scan for tags and broadcast data to the cloud via cellular. Tags were placed on engine inlets to monitor humidity readings, with data being sent to the cloud every 6 hours.









Result

The company completely eliminated manual checks, achieving a 95% efficiency improvement. Automatic humidity alerts help them react quickly to deviations, improving compliance and service quality. They are now exploring additional humidity monitoring methods to further enhance operations.



We're very happy with Pathfindr's solution. It took some testing and time to balance the configuration of GPS Units and Tags, but in the end, the ROI was a no-brainer. Automating manual processes just makes sense. We're now looking to use this technology in other areas.

Transformation Specialist

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