

Spectro | Jet-Care: preventative maintenance

Since its inception in 1976, Spectro | Jet-Care has become a familiar and respected name within the aviation industry, providing fluid and debris analysis services that are an essential part of many aircraft operators' maintenance schedules

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With over 42 years of experience working across different aviation sectors; business and general aviation, airlines, MRO, emergency services, cargo and SAR, Spectro | Jet-Care has established a centre of excellence for laboratory analysis as well as a proven and credible service for engine performance monitoring, a program launched in 1981. Over many years, the company has gained knowledge and expertise and an understanding of issues faced by European regional airlines today and provide a service that allows airlines to plan their maintenance programmes both cost effectively and efficiently.

Verified quality system

Spectro | Jet-Care places a special focus on creating tailored analysis programs that meet the customer's individual needs; one size does not fit all. Maintaining a quality service is fundamental to the company's offering and it recognises that the latest accreditation plays a key role in delivering quality results time and time again, whichever laboratory the customer sends samples to. All three Spectro | Jet-Care laboratories, located in the UK, US and Switzerland, adhere to the same quality system, verified by UKAS and SAS, ensuring the company complies with ISO/IEC 17025, the testing and calibration laboratory standard.

Identifying issues

The company explains that its comprehensive fluid and debris analysis service, available across all three laboratories, includes oil, filters, debris, fuel and hydraulic fluids. The analysis results are reported within two working days and can help identify problems with the mechanical condition of engines, the condition of the fluids and any contamination of those fluids that may undermine performance. The Spectro | Jet-Care team of experienced chemists and engineers have a demonstrable track record of finding potential issues and provide immediate support to grounded aircraft with a 24/7/365 AOG fast track analysis and reporting.

The data generated from a regular maintenance programme is also available to operators through the Spectro | Jet-Care in-house online system, webECHO™, which allows further analysis and trending of results according to aircraft and equipment type, or to compare results across fleets of aircraft, for example.

Engine trend monitoring

Alongside the fluid and debris analysis services offered, the Jet-Care Gas Path Analysis (GPA) engine trend monitoring program monitors the health of aircraft gas turbine engines. Stephanie Little, Aviation Business

Development Manager, at Spectro | Jet-Care comments: “The wide-ranging portfolio of trend models are individually designed and built specifically for a particular engine and airframe type, rather than using one system for all engines. The models are independently developed and maintained by our engineers (thermodynamicists) and IT specialists, and managed by our experienced team of aeronautical engineers.”

Jet-Care GPA portfolio

As the only independent engine trend monitoring company with Lloyds Register Quality Assurance accreditation for AS9100 and ISO9001 Quality Management Standards, Jet-Care's Gas Path Analysis program (GPA) service has become an important part of many operators' maintenance programs. Jet-Care's GPA portfolio includes the following engines:

- CFE Company – CFE738
- CFM International – CFM56-3
- GE – CF34
- Honeywell – TFE731, TPE331, HTF7000 series, ALF502 and LF507
- Pratt & Whitney Canada – PW100 series, PW300 series, PW500 series, JT15D and PT6
- Rolls-Royce – BR710, BR725, AE3007 and Tay 611
- Williams International – FJ44

Jim Lawrie, Jet-Care Operations Manager comments: “By comparing trend data with in-house created engine models, these precise results can help identify significant changes in engine condition, help reduce maintenance costs, avoid major overhauls and maintain optimum operational availability. The Jet-Care team also offer full technical and administrative support 24/7 to aid diagnosis, interpretation of data and give guidance to the engineer ‘in the field.’” ■

