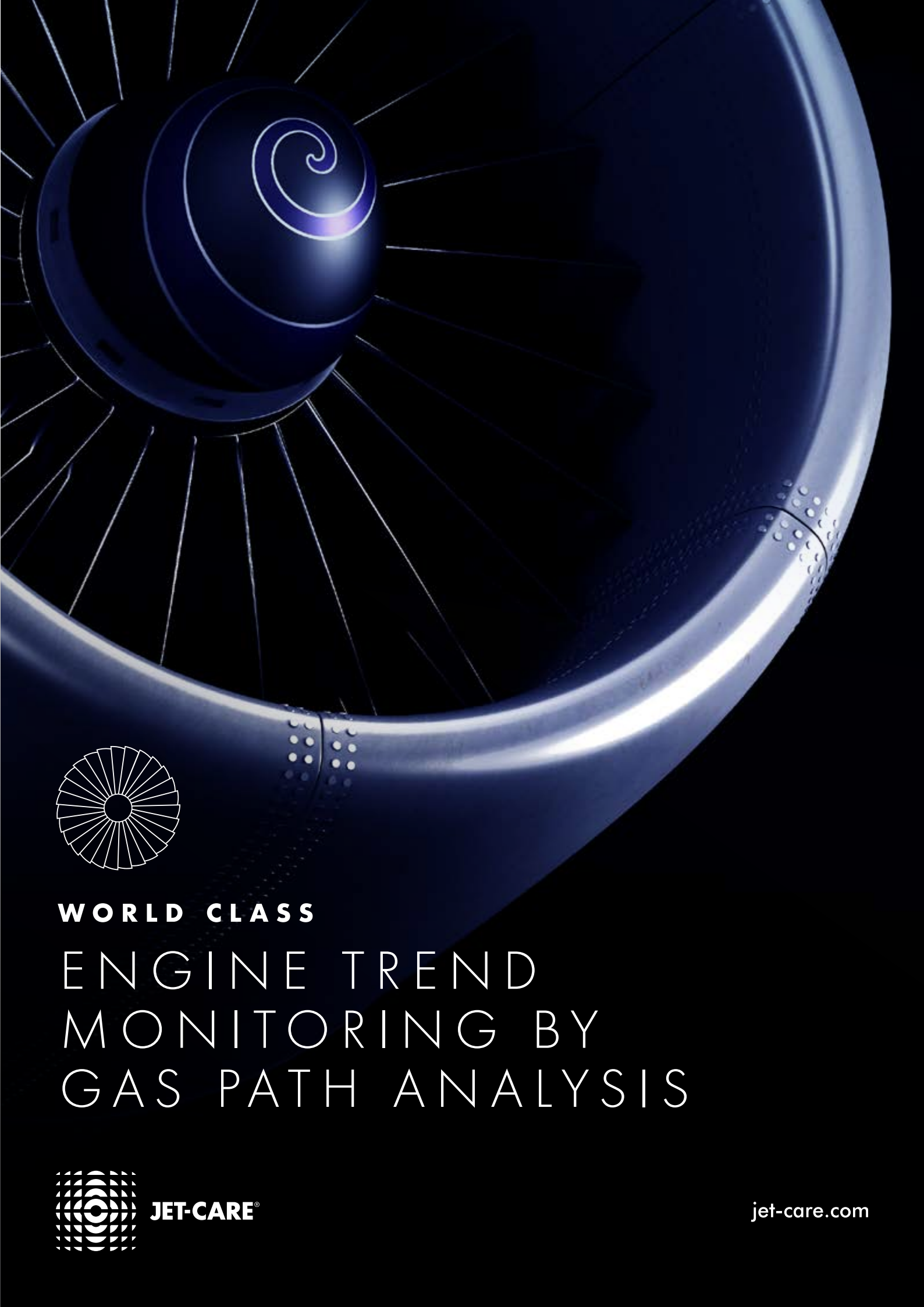


WORLD CLASS

ENGINE TREND MONITORING BY GAS PATH ANALYSIS

JET-CARE®

jet-care.com

JET-CARE'S INDEPENDENT DATA ANALYSIS SERVICES EVALUATE AND MONITOR THE HEALTH OF YOUR GAS TURBINE ENGINES TO ENSURE THEY ARE CONSISTENTLY OPERATING AT PEAK PERFORMANCE.

At the forefront of engine trend monitoring services to the global aviation industry since 1981, Jet-Care's independent data analysis services evaluate and monitor the health of your gas turbine engines to ensure they are consistently operating at peak performance. The Jet-Care Gas Path Analysis (GPA) service analyzes core engine data to help identify significant changes in engine condition. The data generated allows the early detection of problems that may reduce engine efficiency or lead to unscheduled downtime, expensive repairs and ground running.

Our GPA program can identify core engine degradation. By comparing trend data against our engine models, we can detect the point at which long term wear begins to significantly decrease engine efficiency. We can also identify other performance issues such as problems with main engine instrumentation, bleed air losses from defective bleed valves and ducting, and limiting turbine temperature which can restrict take-off power.

QUALITY

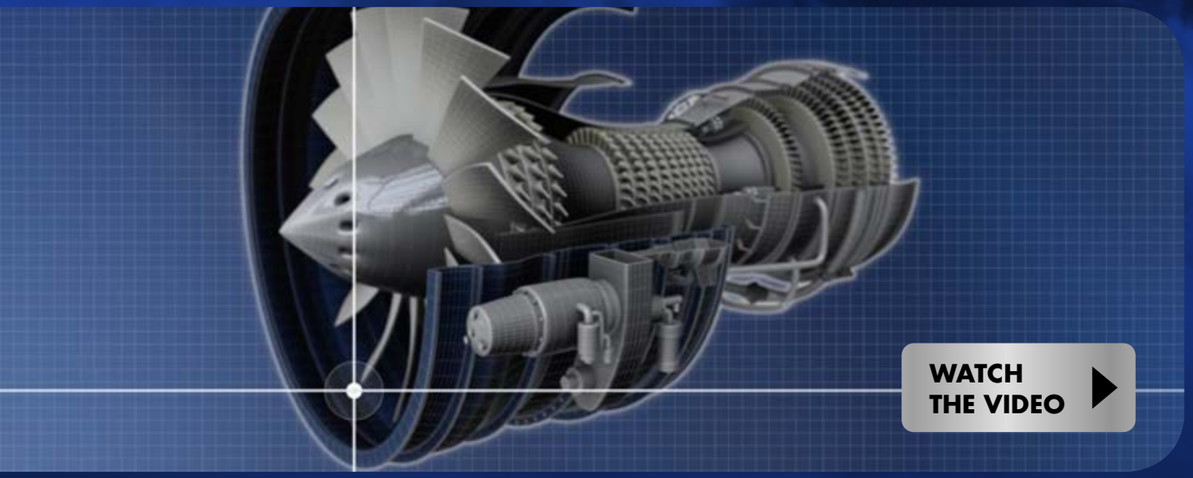
Our unrivalled expertise, quality control and integrity are supported by industry recognised accredited certification and as the only independent engine trend monitoring company* with Lloyds Register Quality Assurance accreditation for AS9100 and ISO9001 Quality Management Standards we are able to bring a proven and credible alternative to OEM programs.

LRQA CERTIFIED
ISO 9001 • AS 9100

*Information correct as at 19 August 2025 according to OASIS (Online Aerospace Supplier Information System), the system owned and maintained by International Aerospace Quality Group (IAQG)

HOW DOES GPA WORK?

From your flight data, we analyze key engine parameters including fuel flow, shaft speeds and gas temperatures. These recordings are corrected to standard conditions and compared with our engine models. The trend plots produced, using the corrected data, are analyzed to assess any change in the engine condition with significant deviations prompting an alert.



THE GPA SERVICE

The Jet-Care GPA Service covers:

- A wide range of engine programs from 550shp turboprops to 30,000lb turbofans.
- Your data is processed and evaluated within 24hrs of receipt, and reported on line with a fast track service available on request.
- Simple and accurate routine reports which provide a chronological record of engine trend status.
- Alert and advisory reports with advice and diagnosis for engine problems.
- 24/7 support on engine performance issues from our experienced trend engineers.

ENGINES CURRENTLY TRENDED ON JET-CARE GPA

CFM INTERNATIONAL CFM56-3 • CFM56-7 | **GENERAL ELECTRIC** CF34
HONEYWELL TFE731 • TPE331 • ALF502 • LF507 • HTF7000 Series
HONEYWELL/GE CFE738 | **PRATT & WHITNEY CANADA** 100 Series • 300 Series • 500 Series • 600 Series • JT8D • JT15D • PT6 | **ROLLS-ROYCE** AE3007 BR700 Series • TAY 611 • TAY 620 | **SAFRAN** Larzac 04 | **WILLIAMS INTERNATIONAL** FJ44

In order to provide a comprehensive GPA service to the aviation industry Jet-Care has an ongoing development program to enhance its engine portfolio.

WITH ACCREDITATIONS FROM ALL MAJOR ENGINE AND AIRFRAME MANUFACTURERS, OUR SERVICES ARE TRUSTED WORLDWIDE.

webECHO™

Trends and associated comments are available online using webECHO™, our secure online portal that gives you immediate access to your latest results, data and trend reports. In addition you will also receive a monthly report with your latest trend status.

Significant trend changes are highlighted as an alert or advisory which includes an interpretation of potential problems based on current knowledge of your aircraft engines and comparable fleets in the system. Our experienced team of engineers can also offer immediate support to your own teams during fault diagnosis.

Available on the App Store

WATCH THE VIDEO

iECHO GPA™

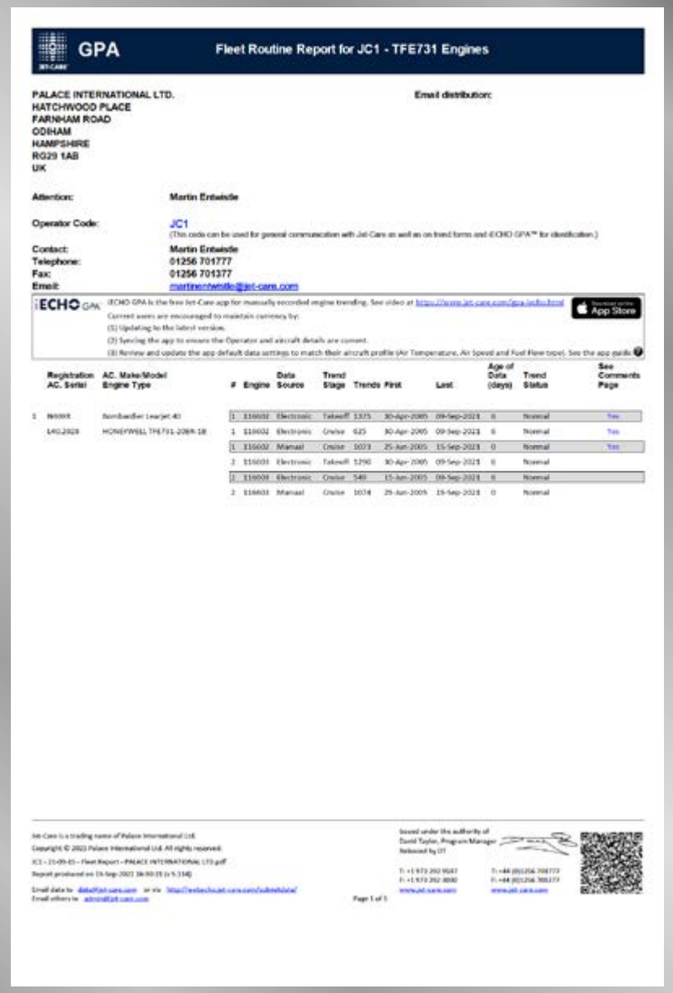
SENDING DATA TO JET-CARE

Our unique application for iPad, iECHO GPA™ is the quickest way to submit engine trend data to Jet-Care. It allows pilots to enter data electronically rather than record it manually on paper trend sheets. Aircraft equipped with connectivity can then submit the data, during the flight or on the ground.

Data can also be sent to Jet-Care either by email or using the upload function on our online form. All data is processed, analyzed and available on webECHO within 24 hours.

REPORTING & TECHNICAL SUPPORT

These pages are an excerpt from a full GPA report which normally contains 7–8 pages of trend data.



GPA Fleet Routine Report for JC1 - TFE731 Engines

PALACE INTERNATIONAL LTD.
HATCHWOOD PLACE
FARNHAM ROAD
ODIHAM
HAMPSHIRE
RG29 1AB
UK

Email distribution:

Attention: Martin Entwistle

Operator Code: JC1
(This code can be used for general communication with Jet-Care as well as on trend forms and ECHO GPA™ for identification.)

Contact: Martin Entwistle
Telephone: 01256 701777
Fax: 01256 701377
Email: martinentwistle@jet-care.com

ECHO GPA ECHO GPA is the free Jet-Care app for manually recorded engine trending. See video at https://www.jet-care.com/gpa-echo.html
Current users are encouraged to maintain currency by:
(1) Updating to the latest version.
(2) Syncing the app to ensure the Operator and aircraft details are current.
(3) Review and update the app default data settings to match their aircraft profile (Air Temperature, Air Speed and Fuel Flow type). See the app guide.
Download on the App Store

Registration AC. Serial	AC. Make/Model Engine Type	#	Engine	Data Source	Trend Stage	Trends	First	Last	Age of Data (days)	Trend Status	See Comments Page
1 N600X	Bombardier Learjet 40	1	116032	Electronic	Takeoff	1375	30-Apr-2005	09-Sep-2021	0	Normal	Yes
L40.2028	HONEYWELL TFE731-20BR-1B	1	116032	Electronic	Cruise	625	30-Apr-2005	09-Sep-2021	0	Normal	Yes
		1	116032	Manual	Cruise	1073	25-Jun-2005	15-Sep-2021	0	Normal	Yes
		2	116031	Electronic	Takeoff	1290	30-Apr-2005	09-Sep-2021	0	Normal	
		2	116031	Electronic	Cruise	549	15-Jun-2005	09-Sep-2021	0	Normal	
		2	116031	Manual	Cruise	1074	25-Jun-2005	15-Sep-2021	0	Normal	

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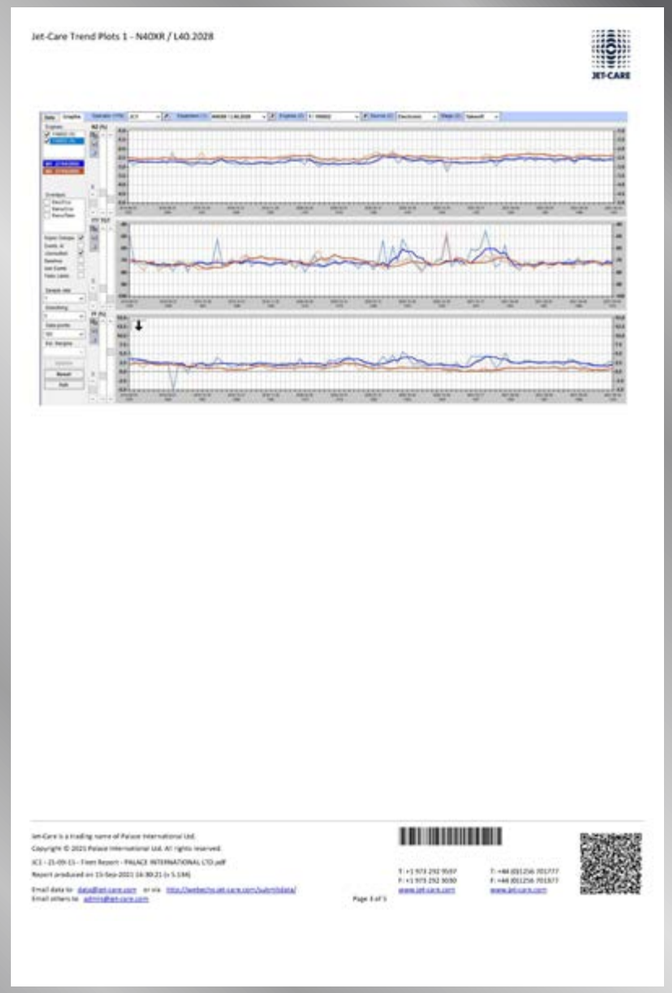
GPA REPORT PAGE 1



Jet-Care Trend Plots 1 - N40XR / L40.2028

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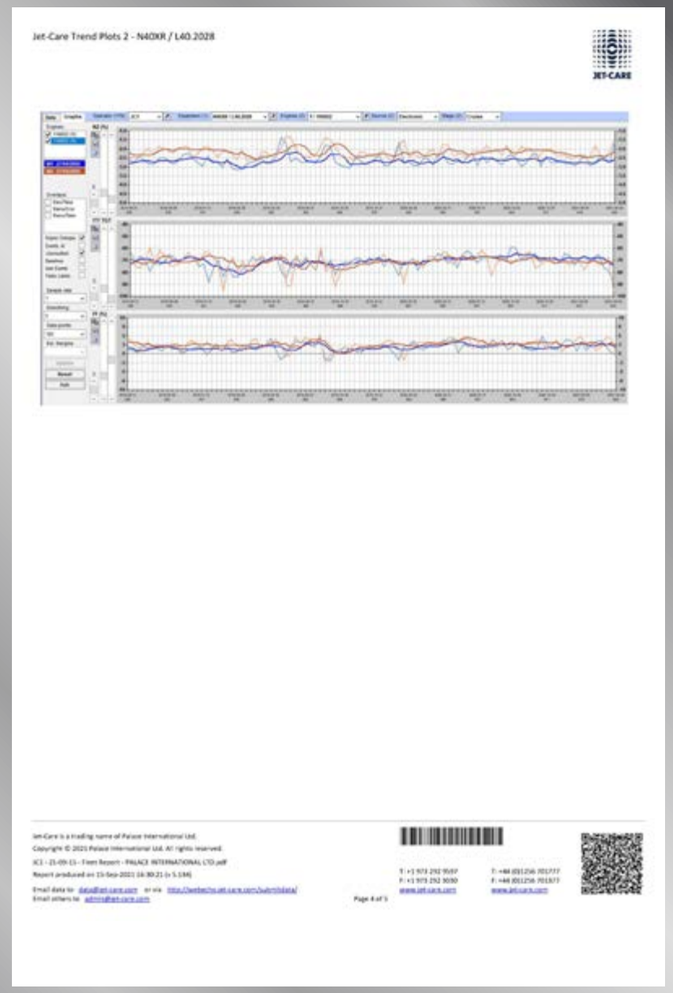
GPA REPORT PAGE 2



Jet-Care Trend Plots 2 - N40XR / L40.2028

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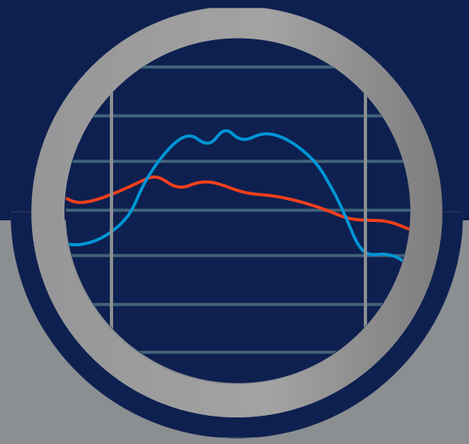
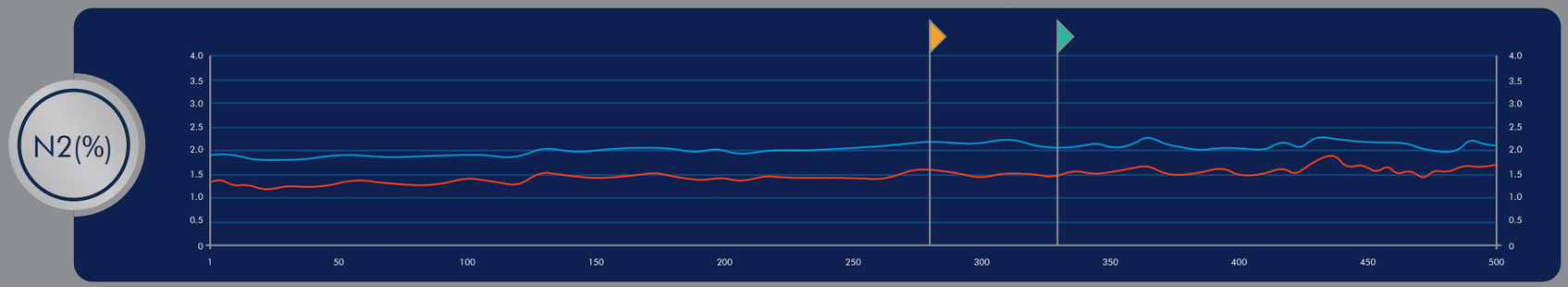
GPA REPORT PAGE 3

The following are a number of real life examples which the Jet-Care GPA program has detected, alerting operators to the issues and enabling them to implement the most cost efficient course of corrective action.



CASE STUDY 1

HIGH SIDE BLEED VALVE FAILURE



Trend Changes:

New data received showed a step increase in ITT (+15°C) and Fuel Flow (+2.5%) in take-off plots with similar changes in cruise data. No engine issues advised.

Jet-Care Recommendation:

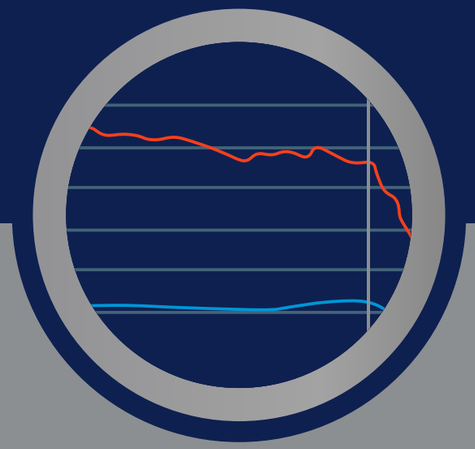
Investigate for HP Air Valves and Bleed faults/leaks.

Outcome:

Customer troubleshooting found High Side Bleed Valve (HSV) had failed open and replaced item. Plots recovered to normal levels.

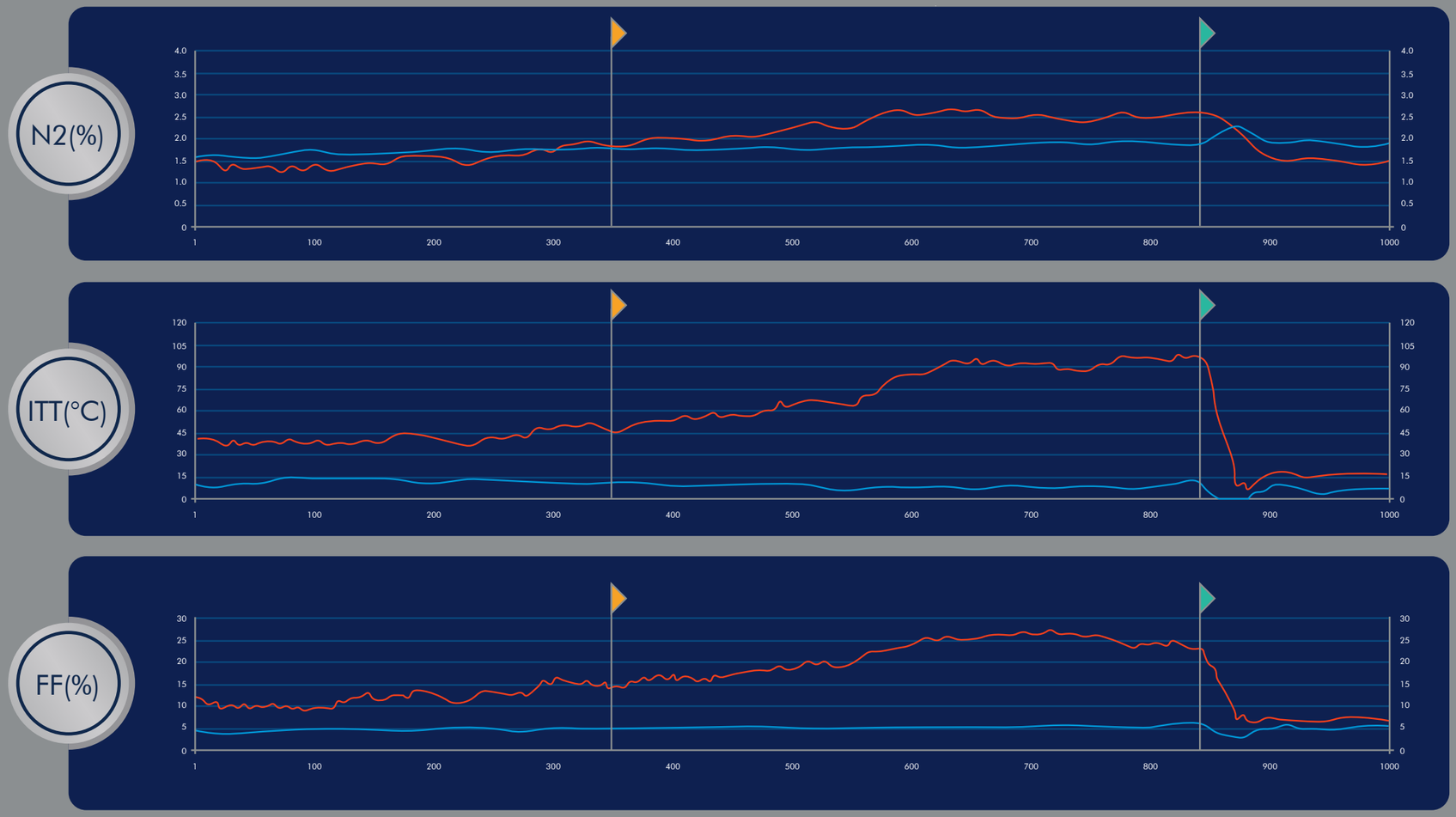
Benefit:

By replacing the HSV at this early stage, the customer prevented fuel wastage and the engine was protected from long term hardware damage caused by operating the engine at higher ITT's.



CASE STUDY 2

COMPRESSOR ACCELERATION BLEED CONTROL VALVE FAILURE



Trend Changes:

Long term gradual increasing core plots to ITT(+60°C), N2 (+2%) and Fuel Flow (+12%) above original stable levels.

Jet-Care Recommendation:

Investigate Compressor bleeds/valve operation.

Outcome:

Customer troubleshooting found Compressor Acceleration Bleed Control Valve fault and replaced item. Plots recovered to normal levels.

Benefit:

By replacing the Compressor Acceleration Bleed Control Valve, the engine was returned to a more efficient operation reducing fuel consumption and maintaining a lower core engine speed and temperature.

EXPERIENCE THE DIFFERENCE

With a demonstrable track record and unrivalled reputation in the industry, we believe our service is second to none. Our unique engine trending algorithms and processes are the product of our commitment to continual improvement and development. Combined with our team of engineers providing expert advice and support around the clock, our service has become an integral part of the maintenance strategy of aircraft operators around the world.

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