Increase fuel efficiency to lower costs and reduce carbon emissions

Fuel Insight from GE Digital Aviation Software

What is
Fuel Insight?

Fuel Insight is the class-leading fuel efficiency analytics suite from GE Digital Aviation Software. Visualize and understand fuel usage, determine exactly how much fuel is wasted, identify ways to save, and track the rates of procedure adoption across a fleet with unrivaled depth, speed, and accuracy.

Fuel Insight gives the most accurate insights on savings initiatives and opportunities because it uses the best sources of data—your actual flight plans and operational data fused with the original flight data recorded by the aircraft.

A robust suite of analytical tools and reports for fuel efficiency

Analytical tools and reports from Fuel Insight can help you gain visibility into major fuel consumption areas and savings opportunities, and craft the optimum savings program built around real data insight.

In 2018, with jet fuel prices averaging $86 per barrel, airlines' fuel bills reached **$220 billion**, or **24.6%** of their operating expenses[1]

Frost & Sullivan estimates that airlines overspent $11.3 billion on fuel, amounting to 5.4% of the total fuel bill for the year[1]

Top fuel overspend attributions 2018

$4.02B	$3.40B	$2.21B	$.87B
Inefficient Flight Profiles	Inefficient Flight Planning	Surplus Aircraft Weight	Overfueling

Visualize abstract data easily

- Examine real flight data down to the parametric sample to identify causes of over or underburn

- View planned vs. actual by waypoint, procedure efficiency, and landing fuels in interactive web-based data viewers

Control how and where data flows throughout your organization

- Maintain ownership of your data

- Host your data in the Microsoft Azure Cloud

- Multi-level user security

Overcome your top Fuel Efficiency challenges with Fuel Insight

Unlock the potential of full flight data

Make data useable with the highest quality data processing engine in the industry

- Full hosting of flight data recorder data with no limits on the number of flights or the age of the data

- Access data from our EMS analytics platform with over 10,000 pre-configured analytics objects and studies

- Rigorous data setup and maintenance by GE Digital experts to ensure the highest quality output

- Automated ongoing data quality monitoring

- Multi-level data cleansing across fleet, aircraft, flight and individual parameter samples to clean and normalize comprehensive flight data at scale

Overcome your top Fuel Efficiency challenges with Fuel Insight

Get the insights you need to increase fuel efficiency and minimize environmental impact

Automatically analyze flight data, examine trends, and identify fuel savings opportunities

- Get quick, accurate reporting and tracking customized to your operation (Core + Mainline)

- Drill down to the flight parameter level to identify root cause (Core + Mainline)

- Utilize our statistical fuel models with customizable export of information for your flight planning system (Stat Taxi)

- Automatically detect airport, runway, and procedure flown for A vs B comparison

- Leverage out-of-the-box procedures or build and customize your own

Access the most comprehensive library of pre-built analytics in the industry

- The most robust, accurate analytics on the market

- 10,000+ fully configured analytics for quick query results

- Observes 30+ identified performance behaviors

- Understand aircraft efficiency rankings across your fleet and measure the excess fuel bill incurred by aircraft

Craft the optimum savings program around real data insight

- Identify variability between flights

- Pinpoint cost drivers and rank programs by effectiveness, attainability, and savings potential

- Visualize deviations from plan and determine procedures with the lowest fuel cost

Leverage leaders in your field for consultation

- Access GE Digital's fuel and carbon analytics experts (Core + Mainline)

- Web support portal

- Available 24/7 support (Core + Mainline)

- Premium support standard 9x5 and dedicated Customer Success Manager (Mainline)

- Access to our customer user forum and annual users conference

Fuel Insight Core

A class-leading fuel efficiency analytics suite from GE Digital Aviation Software
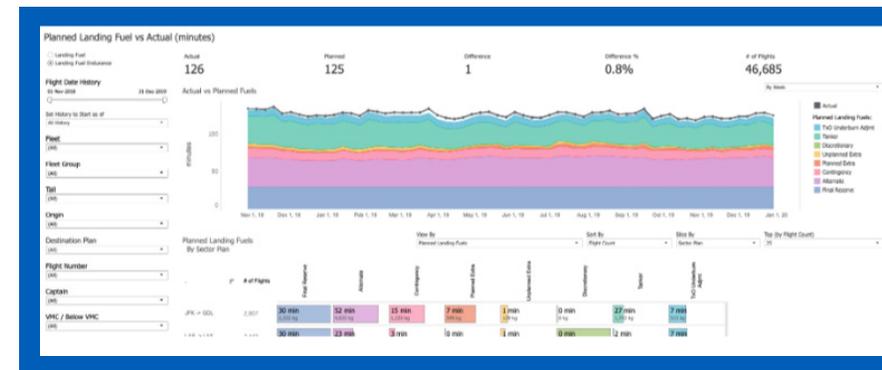
How it works

Leveraging the power of the EMS (Event Measurement System), a flight data analytics platform from GE Digital Aviation Software, Fuel Insight Core uses a patented method to fuse flight data (from the QAR or FDR with an airlines operational data to deliver the most robust, accurate analytics on the market. Statistical insight are presented on a user-friendly Tableau dashboard interface, and Fuel analysts can use EMS Explorer to drill down into specific flights to identify causes of over or under burn.

Our Digital Works services team is fully available to assist in project identification and change management initiatives. GE Digital's fuel and carbon analytics experts can help your airline identify areas of operational inefficiency, build programs to address, and track the savings.

Features and benefits:

- Fully automated data ingestion and error correction

- Project tracking customized to your operation

- Actual v Planned by Waypoint; Approach and Departure analytics; Landing Fuels; and more

- CORSIA reporting enabled via FRED+ compatible exports

- Drill down to the flight parameter level to identify root causes

AirAsia attributes a 1% annual fuel savings to their work with GE Digital's digital Fuel Experts

Fuel Insight Mainline

A premier fuel and emissions analytics platform from GE Digital Aviation Software

Our Digital Works services team is fully available to assist in project identification and change management initiatives. GE Digital's fuel and carbon analytics experts can help your airline identify areas of operational inefficiency, build programs to address, and track the savings.

How it works

Leveraging the power of the EMS flight data analytics platform, Fuel Insight Mainline uses a patented method to fuse flight data (from the QAR or FDR with an airlines operational data to deliver the most robust, accurate analytics on the market. Statistical insight are presented on a user-friendly Tableau dashboard interface, and Fuel analysts can use EMS Explorer to drill down into specific flights to identify causes of over or under burn.

Features and benefits:

- All the features and benefits of Fuel Insight Core

- BCM 2.0 technology to identify cost drivers and precisely measure program effectiveness

- Statistical fuels output to your flight planning system

- APM Editor and Tableau Web Data Connector to construct your own analyses and BI tool integration

- Standard 9x5 customer support and a dedicated Customer Success Manager

Fuel Insight Comparison

Capabilities	Core	Mainline
Software maintenance upgrades	✓	✓
Web support portal and knowledgeable experts	✓	✓
Automatic data processing and correction	✓	✓
Airport, runway, and procedure detection	✓	✓
METAR and TAF matchup	✓	✓
Multi-level user security	✓	✓
Fully-configured library of analytics	✓	✓
Available 24/7 support	✓	✓
20 hours services credit (first year)	✓	✓
Users forum, users conference, online knowledge base	✓	✓
EMS Explorer Access to view Fuel Analytics Library	✓	✓
CORSIA Reporting via FRED+ compatible report	✓	✓
Planned v Actual; Waypoint; Approach; Taxi analytics	✓	✓
Project tracking – savings attained vs. attainable	✓	✓
Available access to FDM Safety Analytics	✓	✓
Premium Support Standard (9x5 local time)		✓
Highly precise project tracking		✓
BCM 2.0 Analytics – savings opportunity vs. attainable		✓
Statistical Fuels output for flight planning		✓
Tableau Web Data Connector		✓
APM Editor		✓

Identify

Analyze fuel burn and track fuel efficiency metrics to alert fuel analysts of opportunities to reduce overspend

Adapt

Adjust procedures based on inefficiencies highlighted in Fuel Insights reports

Deliver

See results in your data as fuel overspend diminishes over time

Contact your representative at GE Digital Aviation Software to learn more about how your airline can benefit from Fuel Insight.

ge.com/digital/flight-analytics
ge.com/digital/fuel-insight