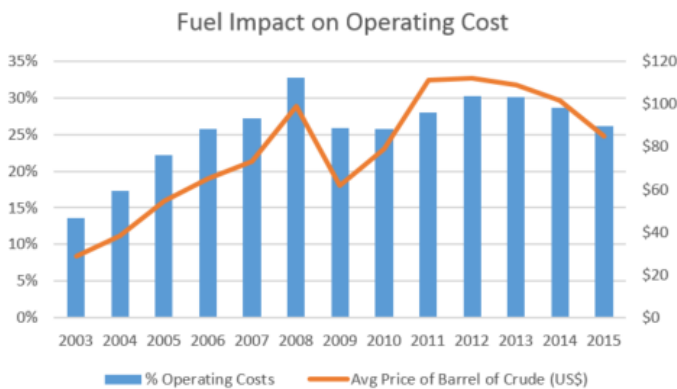


Fueling your flight planning with insight and precision

Comprehensive insights into fuel consumption.

Opportunities to improve performance and reduce total flight cost.



Over the last decade fuel has become one of the single biggest operating costs for an airline. Fuel costs have more than doubled from 14% of operating costs in 2003 to just under 30% in 2014 based on figures published by IATA.

Over that time the airline industry has introduced a number of fuel conservation programs that focus on improving operational efficiency and reducing fuel related cost. The effectiveness of these programs is limited by the airlines ability to accurately measure and manage the compliance with and impact of the program policies.

Rainmaker's Fuel Analytics provides airlines with a comprehensive fuel analysis and reporting solution, identifying fuel savings and supporting proactive management of policy and SOP's that promote efficiency.

Fuel Analytics consolidates information from various sources (Flight Planning, Flight Operations, ACARS, etc.) to provide a single scalable reporting & analytics solution.

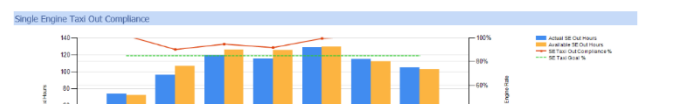
The 'out of the box' infrastructure and data management capability supports many important reporting and analytic themes such as:

Efficient Flight Planning

- **Alternate Selection** – select and manage based on the likelihood of actually going to the alternate
- **Additional Fuel** – manage compliance and communicate statistical data to inform and guide dispatchers / pilots to minimize excess fuel being boarded
- **Reference Data** – continually validate flight planning reference data against actual aircraft performance, flight / taxi times, etc.
- **Confidence** - ensure that dispatchers let the flight planning software automation and optimization run its course
- **Compliance** – measure cost impact and compliance rates across dispatchers/pilots

Taxi Out Time Accuracy		Taxi In Time Accuracy		Total Taxi Accuracy		Missed SE Savings Opportunities		SE Savings Accomplished	
Plan Hrs	Act Hrs	Plan Hrs	Act Hrs	Plan Hrs	Act Hrs	Any Potential	Any Actual	Any Potential	Any Actual
-6.0%	-1.1	-35.3%	-2.4	-14.2%	-3.5	\$36,675	\$67,818		
Under	Mis Per Flt	Under	Mis Per Flt	Under	Mis Per Flt	PM	YTD	PM	YTD
PM	-4.4%	YTD	-6.0%	PM	-32.5%	YTD	-23.8%	PM	-12.3%

Total SE Taxi Compliance			SE Taxi Out Compliance			SE Taxi In Compliance			Capture Rates						
Completed	Valid	Capture Rate	SpeedRAT	WSB	Engine	APU									
89.7%	102.5%	75.1%	93.45%	95.7%	93.45%	23.9%									
PM	90.8%	YTD	87.4%	PM	102.5%	YTD	97.2%	PM	75.5%	YTD	75.3%				



Do you know where fuel is being wasted?

Efficient Flight Operation

Effective measurement of compliance and cost impact across various phases of flight

- **Single Engine Taxi** – measure compliance and actual cost of missed savings across crew, airport and equipment
- **APU Usage** - monitor compliance against airport ground handling contract and GPU support capability
- **Actual Flight Level and Speed Compliance** – ensuring pilots fly the mission as planned
- **ETOPs and Waypoint Analysis**

Manage What You Can Measure

- Planned versus Actual Arrival Endurance
- Gallons/Litres Burned Per Block Hour
- Burn Variance – Flight Plan v's Actual (Departure, Enroute and Landing Fuel)
- Percentage of Alternates, Hold and Tankering
- Dispatcher, Aircraft and Captain Benchmarking (Note : Crew names can be anonymized)
- Flight Plan overrides by dispatcher
- Flight Plan excursions by captains
- Departure and Arrival Taxiing performance, Single Engine Taxi and APU analysis
- Overflight Charges
- Cost Assessment for sub optimal flying and cost to carry of boarding unnecessary fuel

Capabilities

- **Integration** – built-in integration to core systems from flight planning , flight scheduling, FDM, EFB and ACARS
- **Automated** – data collection, validation, processing, analysis and monitoring
- **Data Cleaning/Quality Control** – configurable validation rules combined with statistical and cross reference checks on various source systems
- **Depth of Data** – direct access to a comprehensive data warehouse and OLAP cube model, supporting analysis to flight/segment level
- **Suite of KPIs and cost assessment measures** delivered via web/mobile based dashboards, reports and alerts

Self-Drive Data Mining & Analysis

Explore and mine data directly from the Fuel Analytics Cube.

- Generate **Analyzed Contingency Fuel (ACF)** values based on statistical model
- Supports 3rd party **visualization** and **advanced data mining** models using Excel, R and Tableau



Single Engine Taxi Out Compliance by Departure Airport City

Take Control of Fuel Consumption Costs with Rainmaker Fuel Analytics

Contact Rainmaker for details at: sales@rainmaker.aero

or by phone: +353 1 6675245