

A photograph of two children in a vast green field under a cloudy sky. A girl in the foreground holds a green and blue model airplane, while a boy in the background holds a blue and white one. The word "SITA" is overlaid in large white letters.

SITA

SITA OPTIFLIGHT®

PREDICT, ACHIEVE AND REPORT
INFLIGHT FUEL SAVINGS FOR ALL
FLIGHT PHASES

SITA OptiFlight® is the only inflight optimization solution combining digital twin technology, machine learning, and tail-specific modeling for all flight phases.

The Missed Opportunity in Every Flight

Fuel is your airline's single biggest operating expense — and your largest source of emissions. Yet flight plans based on standard OEM models don't reflect the realities of each tail, route, or weather scenario, leading to avoidable fuel burn and emissions.

SITA OptiFlight® is the industry's first and only digital twin-powered inflight fuel optimization solution.

It builds tail-specific, predictive performance models using your historical flight data and machine learning, together with 4D weather forecasts to identify the best fuel-saving opportunities across climb, cruise, and descent. These insights are delivered as tactical, easy-to-apply recommendations directly to your pilots.

The result? Immediate, systematic, and fully measurable fuel and emissions savings, flight after flight.



Finally, a Truly Tail-Specific Optimization

SITA OptiFlight® is powered by a proprietary Digital Twin engine — a smart, virtual replica of each aircraft in your fleet, built using your own operational data.

By learning from over 40 performance inputs from QAR data, the Digital Twin uses predictive modeling to understand how each aircraft actually performs in real-world conditions, not just in theory. This makes it truly tail-specific.

Unlike generic OEM or statistical models, SITA OptiFlight can simulate every possible flight scenario and predict the most fuel-efficient trajectories, all while respecting your time constraints.

No assumptions. No guesswork

Just precise, real tail-specific optimization — for your fleet, and your reality.



Save fuel on all phases of a flight, with one single solution

With SITA OptiFlight, nothing needs to change in an airline's core operations:

Climb-Out



OptiClimb®

Climb-out optimization using custom speeds and acceleration levels

NO ATC CLEARANCE REQUIRED

Lateral Cruise



OptiDirect

Shortcut recommendations based on historical tracks flown and weather forecasted.

SUBJECT TO ATC CLEARANCE

Vertical Cruise



OptiLevel

Cruise level and speed optimization based on updated weight, position, and weather.

SUBJECT TO ATC CLEARANCE

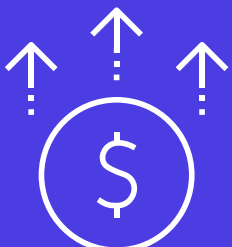
Descent



OptiDescent

Descent optimization based on historical trajectories to predict distance-to-go and optimal Top of Descent

ATC IMPOSED



Measurable and Verifiable Savings

up to **5%** in climb

up to **3%** in cruise

The SITA OptiFlight[®] Advantage



Save Fuel Without Compromising Time

Delivers precise, flight-specific savings from day one; while respecting time constraints and on-time performance targets.



Pilot-First Experience

Clear, tactical recommendations delivered via the SITA EFB interface, ACARS, or directly in the EFB — with no added workload.



Predicts Every Scenario with a Digital Twin

Builds a precise virtual replica of each aircraft and models every possible trajectory, so you can fly the most efficient one.



Seamless to Implement

No hardware required. Fully integrates with your existing systems in under 22 weeks.



Tail-Specific Digital Twin Modeling

Uses 40+ real-world parameters from QAR data to build truly tail-specific performance models.



Real Savings. Verified Flight by Flight

Fuel savings are measured, reported, and verified using your own operational data — no guesswork, no estimates.



Nothing needs to change, except your fuel costs

Implement SITA OptiFlight®, with no impact on your operations and systems



Compatible with all flight planning systems



Integrates with most EFB applications including SITA Flight Folder and SITA eWAS



Intuitive and easy-to-use for pilots



No need to purchase new hardware - pay as a service

Making life easier, right across the airline



For Finance Leaders

Typically **300%+** ROI, documented cost reduction. Verified by real fuel-burn data.



For Pilots

Clear, timely guidance in your **EFB, ACARS, or SITA's dedicated pilot app** — right when you need it.



For Ops & Dispatch

Better insights, smarter decisions, smoother coordination **with ATC.**



For Sustainability Teams

CO₂ savings at scale. Up to **5,000** tons saved annually (20 aircraft).

Designed by pilots, loved by CFOs and sustainability officers

SITA OptiFlight® was designed to reduce fuel burn in all phases of a flight by a team of aviation experts, including professionals with experience as airline pilots, aerospace engineers, software engineers and data scientists.



11 weeks

Technical set-up



1 weeks

Functional test
(with technical/
management pilots)



10 weeks

Launch (with all pilots)

Up and running within 22 weeks

Typical implementation timeframes

✓ Solution

Never stop optimizing and share your successes

Building on QAR data, actual fuel consumed is compared with predictions for each flight to report on savings and update the machine-learning model.

Meaning we continuously improve our models for optimum efficiency and enable easy reporting against financial and environmental goals for your senior team.



Trusted by leading airlines since 2017

VIVA 

AIRFRANCE 

SKY 

 transavia

airasia

Azul 

SINGAPORE AIRLINES 

AeroLogic

Average savings per climb

Sky Airline (A320FAM) – 78 kg

Transavia France (B737NG) – 74 kg

Singapore Airlines (A350) – 150 kg

AeroLogic (B777F) – 205 kg

Average savings per shortcut taken

Transavia France (B737NG) – 37 kg

AeroLogic (B777F) – 83 kg

Testimonial

Within Aerologic, sustainable operations are a priority for all.

We are excited to innovate with SITA OptiFlight®, a unique solution that empowers our pilots to further contribute to more efficient and greener operations.

JOE MOSER, MANAGING DIRECTOR
BOEING 777 CAPTAIN, AEROLOGIC





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