

SITA



SINGAPORE AIRLINES

How Singapore Airlines saved an average of 150kg of fuel on
climb-out using SITA OptiFlight® with SITA eWAS

Overview

Singapore Airlines (SIA) was looking to reduce fuel costs and cut CO2 emissions in line with their 'Net Zero by 2050' goal. Any new technologies SIA adopted for this purpose had to integrate with existing operations.

Having used SITA eWAS across its fleet for more than 4 years, SIA trialed SITA OptiFlight®, which natively integrates into SITA eWAS, to optimize fuel consumption during climb-out.

SIA estimated this would save an average of 5% of their fuel used on climb-out, and cut carbon emissions of their Airbus A350 fleet by 12,000 tons annually.



Approach

SITA worked closely with SIA Operations and IT staff to deploy SITA OptiFlight® in a trial involving selected A350 flights and pilots. No aircraft modifications or software changes were needed.

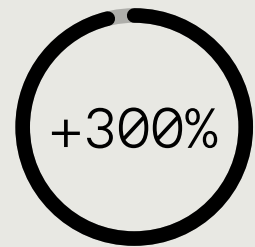
Flight-to-flight comparisons using QAR data revealed savings in aircraft applying SITA OptiFlight® recommendations. Having achieved consistent fuel reduction in the climb phase for the A350, SIA decided to roll SITA OptiFlight® out across all narrow and wide-body fleets.

150kg

150kg of fuel saved per climb-out,
on average

12,000

tons annual reduction in CO2
emissions for the Airbus A350 fleet



minimum ROI anticipated with
SITA OptiFlight®

SITA OptiFlight®

Recommends an optimized climb profile for each SIA flight via an intuitive pilot interface embedded in SITA eWAS. Tail-specific performance models fed with Operational Flight Plan (OFP) inputs and 4D weather forecasts are used to predict fuel burn for various climb-out scenarios. A what-if engine then selects from tens of thousands of scenarios the most efficient one and the related climb schedule (climb speeds, acceleration Flight Level and Climb Mach) is sent to pilots via SITA eWAS.

SITA eWAS

Provides real-time 4D visualization of weather conditions, before take-off and in flight, giving SIA flight crews insights to inform decisions on weather avoidance by changing altitude or considering alternative routes and destinations.

Conclusion

Singapore Airlines, through its adoption of SITA products, achieved a significant milestone, saving 150kg of fuel during climb-out and advancing its goal of 'Net Zero by 2050'. Moreover, the native integration of SITA OptiFlight® in SITA eWAS made the solution adoption by pilots straightforward and efficient.





Contact

Take the next step to
smarter climb-outs.

To Discuss how much your airline could
save or to learn more, please contact:

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