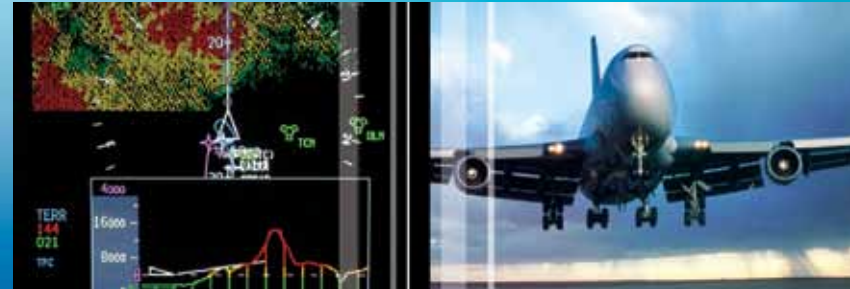




OPERATIONAL PERFORMANCE

# InFlight Optimization Services



LIFECYCLE  
SOLUTIONS



# INFLIGHT OPTIMIZATION SERVICES

**Boeing delivers LIFECYCLE SOLUTIONS,** products, services, and support that will help you achieve success and maximize the value of your fleet through its life. A set of Boeing LIFECYCLE SOLUTIONS is focused on operational performance that can help your maintenance, engineering, and flight operations personnel perform their work in the most effective manner possible, increasing efficiency and profitability.

As a Boeing LIFECYCLE SOLUTION, **InFlight Optimization Services (InFlight)** enables operators to reach new levels of fuel and flight efficiency with reduced costs and emissions. InFlight is a dynamic suite of applications that continuously checks an array of real-time air traffic, weather, and aircraft data to find *post-departure* opportunities for individual aircraft to save fuel and improve operational performance. Advisories are sent directly to the flight deck or to an airline operations center.

## **DELIVERING REAL-TIME ADVISORIES TO SAVE TIME, FUEL, AND EMISSIONS**



Fuel costs represent up to 30 percent of an airline's annual operating budget. Studies estimate that flight and air traffic inefficiencies cause aircraft to use roughly 10 percent more fuel than necessary. Small per-flight efficiency improvements can deliver significant fleet-wide savings over the course of a year.

InFlight gives you a potent new strategy to improve in-flight efficiency, manage fuel costs, and reduce emissions. Better still, InFlight is virtually risk free: operators need little to no new equipment or upfront costs, and savings begin immediately.

## How does InFlight Optimization Services work?

- InFlight continuously monitors each flight's progress to identify emerging efficiency opportunities — configured to airline specifications — and automatically sends advisories to the flight crew or airline operations center.



- InFlight optimizes individual flights by addressing real-time air traffic control system variables, the aircraft's current flight trajectory, flight management computer (FMC) data, weather conditions, and other factors. The information is up to date to within seconds.
- InFlight communicates flight-specific advisories to your operations center or directly to the flight deck in a format that can be immediately loaded into any FMC or acted upon by flight crews.

- InFlight advisories are transmitted using existing communication channels and are designed to be executable within current air traffic and airline operating procedures. No regulatory changes and little to no new equipment are needed.
- InFlight provides airlines with a fleet-wide solution, delivering actionable fuel-saving advisories to your Boeing and non-Boeing fleet of airplanes.



**InFlight Optimization Services** is able to identify real-time fuel-saving opportunities tailored to a specific aircraft trajectory thanks to two powerful new applications:

<b>Direct Routes</b>	<ul style="list-style-type: none"><li>• Continuously scans real-time flight operations and delivers live “actionable” flight-specific advisories that result in efficiency improvements – time, fuel, emissions – throughout the duration of flight. The advisories identify small course adjustments that are user optimized and prechecked for weather, traffic, and air traffic control acceptability.</li></ul>
<b>Wind Updates</b>	<ul style="list-style-type: none"><li>• Provides automatic wind data updates customized in real time for individual flights and delivered to the flight deck in an FMC-loadable format. Without Wind Updates, general weather reports provided to flight crews prior to departure can be as much as 12 hours old as a flight approaches its destination. Inaccurate and limited weather data can prevent aircraft from operating at optimum speeds, altitudes, and trajectories.</li></ul>

## Product

## Feature

### Direct Routes

- Continuously monitors flights in real time and delivers inputs directly to the aircraft flight deck or to an operations center.
- Identifies and communicates emergent in-flight opportunities to reduce one minute or more of flight time and save fuel.
- Locates simple, wind-optimized direct-to-waypoint opportunities that meet air traffic control constraints.

### Wind Updates

- Delivers timely, accurate weather information to the FMC while in flight to enhance flight efficiency and on-time performance.
- Uses adaptive technology to intelligently select the most appropriate wind data for every individual flight.
- Automatically sends accurate wind data to the aircraft flight deck in an FMC-loadable format only when fuel savings are possible.



Direct Routes can save a medium-sized US operator tens of thousands of minutes of flight time per year. Wind Updates can save up to hundreds of pounds of fuel per flight.

***Substantial cost and environmental savings are the result.***

Best of all, these savings are essentially risk free. InFlight provides operators immediate, verifiable benefits. Generally no new equipment is needed, which means there are no upfront costs. InFlight is billed as a subscription service, so the return on investment can be immediate.



**Boeing Commercial Airplanes**

P.O. Box 3707, MC 21-85  
Seattle, WA 98124-2207

[www.boeing.com/commercial/aviationservices](http://www.boeing.com/commercial/aviationservices)

The statements contained herein are based on good faith assumptions and provided for general information purposes only. These statements do not constitute an offer, promise, warranty or guarantee of performance. Actual results may vary depending on certain events or conditions. This document should not be used or relied upon for any purpose other than that intended by Boeing.