

Onboard Performance Tool

Real-time takeoff, landing, and weight and balance calculations using actual operating conditions

Operational impact

Crews make faster decisions at the gate and after pushback without waiting on dispatch. Real-time recalculation reduces departure delays, removes conservative buffers, and improves response to changing conditions. Consistent performance logic across cockpit and ground systems reduces workload and keeps operations aligned.

Business challenge

Airlines must make takeoff, landing, and weight and balance decisions in constantly changing conditions. Many rely on dispatch updates, manual steps, or conservative buffers that slow decisions, limit payload, increase engine wear, and create avoidable delays.

The OPT solution

Boeing Onboard Performance Tool enables flight crews and ground teams to calculate takeoff, landing, and weight and balance in real time using current conditions and Boeing performance data. Crews update calculations instantly, aligning decisions to actual conditions and approved limits without waiting on dispatch.

Key features

- Real-time takeoff, landing, and weight and balance calculations
- Instant recalculation when conditions change, even after pushback
- Uses Boeing SCAP data and Dispatch Deviation Guide logic
- Accounts for MEL, CDL, engine bleeds, and configuration impacts
- Optimizes thrust settings to reduce unnecessary engine wear
- Automatically records calculation inputs and results

Key benefits

- Faster takeoff and landing decisions at the gate
- Maximizes passenger and cargo capacity within limits
- Reduces engine wear through optimized thrust settings
- Eliminates dispatch wait time during last-minute changes
- Reduces manual entry across flight operations workflows
- Improves confidence with OEM-aligned performance calculations

Proven operational impact

- Up to \$90K savings per aircraft annually
- Reduced engine maintenance costs from lower thrust use
- Increased payload revenue through optimized capacity
- Fewer departure delays from real-time recalculation
- Lower operating costs from reduced disruption and rework
- Improved schedule performance across flight operations



Onboard Performance Tool (OPT)

Real-time takeoff, landing, and weight and balance calculations using actual operating conditions

Why OPT stands apart

- Built by Boeing for Boeing aircraft
- Uses Boeing SCAP data, not third-party performance models
- Calculates directly from OEM data without interpolation
- Applies Boeing-defined logic for aircraft configuration impacts
- Delivers one performance standard across cockpit and ground
- Deploys across EFB and ground systems with the same logic

How OPT delivers value

Enable real-time performance decisions

Calculate takeoff, landing, and weight and balance using current operating conditions.

Update calculations instantly

Recompute performance when runway, weather, or configuration changes, even after pushback.

Reduce departure delays

Eliminate dispatch wait time and respond immediately to last-minute changes.

Optimize thrust to protect engines

Select thrust settings that meet requirements while minimizing unnecessary wear.

Maximize payload utilization

Use accurate calculations to increase passenger and cargo capacity within approved limits.

Align performance across operations

Use a single Boeing performance logic across cockpit and ground systems.

Seamless integrations across operations

- Electronic Flight Bag (EFB) systems including mobile tablets and installed cockpit EFB
- Windows-based ground performance environments used by flight operations teams
- Airline dispatch and flight operations workflows

Is your operation ready to engage?

Talk with Boeing to evaluate how Onboard Performance Tool can reduce departure delays, protect engine life, and maximize payload using real-time performance calculations.



Learn more about Onboard Performance Tool at
services.boeing.com/onboard-performance-tool