The Weather Company aviation solutions – Pilotbrief®

The challenges

Aviation operation teams are working in extremely high-pressure environments, often monitoring many separate systems for critical information needed and adjust operations to help ensure safety and efficiency.

Nearly 75% of air traffic delays are due to inclement weather, costing airlines billions of dollars annually.[1]

Achieving successful operations requires constant awareness of fleet positions and an overall understanding of weather's impact on flight operations.

Every decision made must account for a wide range of factors, such as safety, aircraft functionality and airline profitability.

Every airline has some way to plan and track flights, but existing weather information is incomplete and inconsistent resulting in unresolved challenges and reduced efficiency.

Key benefits

- **Optimizing flight plans** and **reducing fuel costs,** and **improving on time performance**
- **Decreasing the number and cost of cancellations,** delays, and diversions due to weather
- **Reducing injuries and operational costs** of turbulence while increasing passenger comfort and retention

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Stay ahead of critical weather with advanced decision support

Increase safety by avoidance of turbulence and other enroute weather hazards

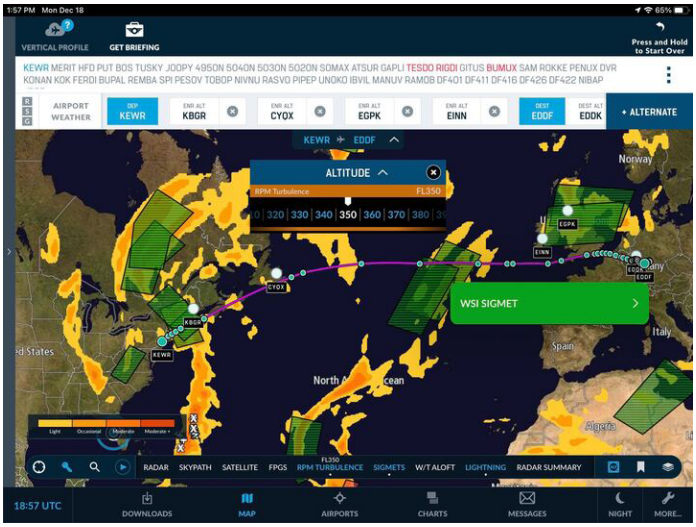
Improve fuel efficiency and reduce costs by optimizing routes in real time during changing weather conditions

Improve on time arrivals by helping pilots to find more optimal routes

Accurate weather intelligence for optimized flight operations

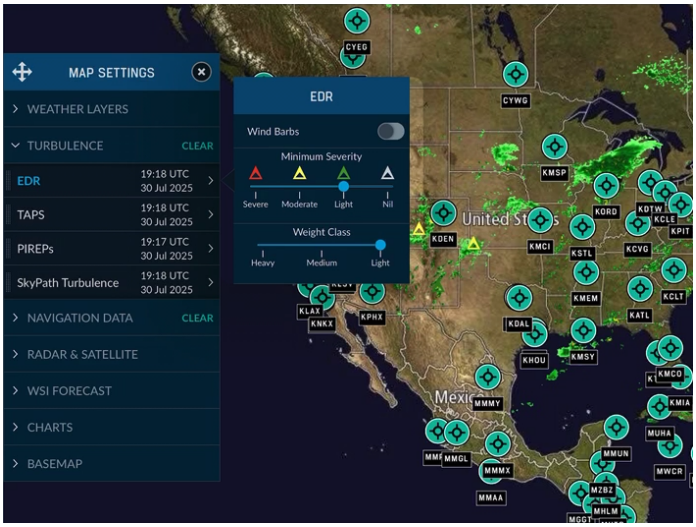
The Weather Company Aviation Solutions suite helps airlines improve operations with on-ground, pre-flight and enroute weather data, tracking and decision support. Advanced weather solutions from [the world's most accurate forecaster](#)[2] help deliver exceptional passenger experiences, increase operational efficiency and asset utilization, and enhance safety and compliance.

Pilotbrief



Anticipate, visualize, and avoid disruptive weather in one interactive workspace. With a connected cockpit and an iPad, Pilotbrief enables pilots to overlay flight routes, access detailed maps/charts including vertical profiles, and generate weather briefings right from their seat.

Functionality that matters



- **RPM Turbulence Forecasting:** Incorporate The Weather Company's state-of-the-art GRAF model, which is optimized via comparisons with turbulence observations using machine learning. It includes specialized logic to identify mountain wave and clear air turbulence, and provides global coverage from 1,000 feet to FL500 at 1,000-feet increments.
- **Centralized turbulence layers:** Access all turbulence datasets, now available in a single group — including PIREPs and TAPS, in addition to SkyPath and EDR for subscribers.
- **Turbulence alerts:** Keep ahead of turbulence with alerts for EDR, PIREPs, FPGs, The Weather Company SIGMETs, and TAPS via in-app and lock screen notifications that detail the turbulence type, severity, and approximate intersection time and flight level.
- **IATA EDR:** View IATA EDR data within Pilotbrief with the proper integration (members of IATA's Turbulence Aware platform). Data is pulled from hundreds of aircraft with the equipment on board to display turbulence events with accurate EDR values.
- **Smoke and ozone layers:** Visualize smoke density (light, medium, or heavy) and ambient ozone levels to avoid potential engine damage or passenger discomfort.

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- **FPGs and SIGMETs:** Get visibility into hazardous enroute weather areas where turbulence, icing, convection, volcanic ash, elevated ozone levels, dust, and any special events are present — issued by in-house EWINS-qualified aviation meteorologists for hazardous enroute weather globally.

- **TAPS®:** Tap into our proprietary Turbulence Auto-PIREP System, using onboard software to automatically measure and report turbulence events detected by existing airplane instrumentation.

- **Global radar:** Access a mosaic of all available weather radar data up to 1-km horizontal resolution from networks across the US, Canada, Europe, Japan, Korea, Australia, and India.

- **SATrad:** Leverage our pseudo-radar product that derives radar-like imagery from satellite imagery.

- **Hot Storm Index:** Gain a clearer understanding of the size and severity of individual storm cells across the United States. The Hot Storm Index contains 85 data points to comprehensively describe the 3D characteristics of a storm cell.

- **Lightning:** Monitor global coverage with an accuracy of up to 150 meters, and latency of less than one minute, from detection to display.

Trusted partner

The Weather Company Aviation Solutions is backed by nearly 30 years of aviation forecasting expertise and the products enable Airlines to Airports to proactively manage disruptive weather ensuring they maintain safe and profitable operations.

- 80,000 users a day trust Pilotbrief globally

- iPad application for in-flight use – mission critical for improved safety

- Used by 75% of commercial pilots in North America

Explore The Weather Company aviation solutions →

[1] FAA, FAQ: Weather Delay, https://www.faa.gov/nextgen/programs/weather/faq
[2] ForecastWatch, Global and Regional Weather Forecast Accuracy Overview, 2021-2024, commissioned by The Weather Company

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