The Weather Company aviation solutions – Total Turbulence

The challenge

Each year, turbulence costs airlines hundreds of millions of dollars in injury claims, operational inefficiencies, aircraft and sensitive cargo damage, and lost revenue.

Your current approach

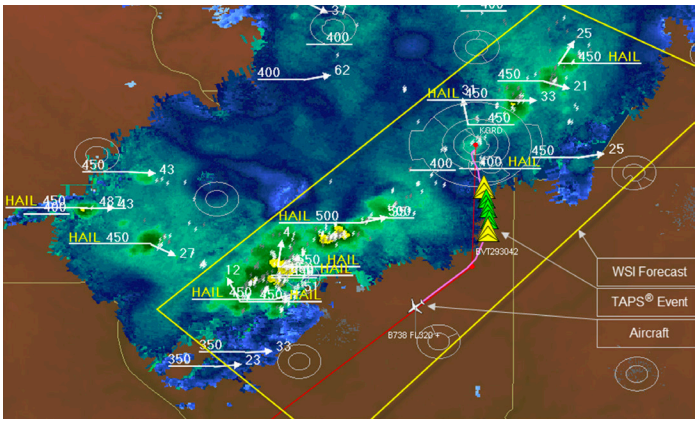
Airlines rely on verbal pilot reports (PIREPs) of turbulence, which are subjective, often delayed and imprecise in location. The government issued turbulence SIGMETs and Significant weather guidance are not airframe or flight segment specific, leading to uncertainty about the location, extent and severity of enroute impacts. Further hampering decision-making, flight crews, controllers, and dispatchers do not always access the same information. This uncertainty can lead to extra contingency fuel, and suboptimal altitude and route plans, all of which drive profit erosion from the planned flight.

Key benefits

- **Improve safety**
- **Reduce maintenance inspections**
- **Improve efficiency**
- **Increase passenger comfort**
- **Enhance operational analysis**

The Weather Company

Total Turbulence provides a workflow integrated end-to-end solution that improves certainty and reduces turbulence impacts and their associated costs. Fusing patented real-time turbulence detection, high-resolution numerical weather modeling, highly experienced aviation meteorologists, and proven delivery platforms, Total Turbulence delivers timely, precise and actionable turbulence alerts and guidance.



Total Turbulence is a proprietary alerting technology that relies on Weather Company EWINS certified forecaster issued SIGMETS/FPGs, traditional PIREPS, simulated turbulence modeling, and TAPS™ events. The Weather Company meteorologists are EWINS trained and have on average over ten years of experience in aviation forecasting for commercial operations. They issue SIGMETS and Flight Plan Guidance (FPG) advisories globally which update every three hours or as needed 24/7.

Besides having access to all global weather modeling, these meteorologists can access the proprietary GRAF model, a high resolution global model that rapidly updates unlike traditional models and with much better resolution for capturing areas where turbulence is likely to occur.

Turbulence Auto PIREP System (TAPS) allows for timely and precise reporting of turbulence location and severity

- Patented, real-time, objective turbulence detection; accounts for airframe
- Proven in NASA and FAA research and operations
- Reports simple severity categories as well as EDR and RMS-g parameters

Turbulence Advisory fills critical information gap and operational blind spots

- Issued for moderate or higher turbulence PIREP or TAPS report prior to SIGMET or FPG amendments
- Indicates clearly the severity and 3D airspace impacted
- Ensures timely alerting to mitigate impacts of emerging significant hazards

Enroute Hazard SIGMETS and Flight Plan Guidance (FPGs) deliver precise, incisive and actionable view of turbulence impacts

- Tailored for transport class aircraft to optimize altitude and route plans
- Created using extensive global observations, publicly-available and proprietary PIREPs, as well as The Weather Company's own weather modeling
- Monitored, redefined, and verified continuously by expert aviation meteorologists 24x7x365

Decision Support Integration ensures all stakeholders are operating on the same page

- Fusion for real-time alerting and optimal planning
- Replay for on-demand post-event analysis
- Pilotbrief for preflight and in flight crew awareness
- Enterprise data services; early maintenance notification
- Builds confidence, collaboration, and sharpens decision-making in all phases

Service Level meets flight critical requirements

- Fully managed and supported
- Fully redundant, active data center architecture
- Premium Service Level available
- Focus scarce IT resources on airline operational optimization

Explore The Weather Company aviation solutions →

The Weather Company