The Weather Company aviation solutions – Fusion

The challenges

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

70% 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.

This is how The Weather Company can help:

- **Optimize flight plans** and **lower fuel costs** without compromising safety
- **Reduce the cost** of cancellations, delays and diversions due to weather
- **Provide awareness of airport and runway congestion** to avoid potential fines

[1] FAA, Inclement Weather, March 2021, https://www.faa.gov/newsroom/inclement-weather-0

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Proactively plan for and respond to critical weather events with advanced decision-support solutions

Reduce workload and reduce costs by streamlining workflows.

Help improve compliance with operational and regulatory requirements.

Mitigate operational impacts due to weather, including irregular operations.

Solutions that are designed to help organizations

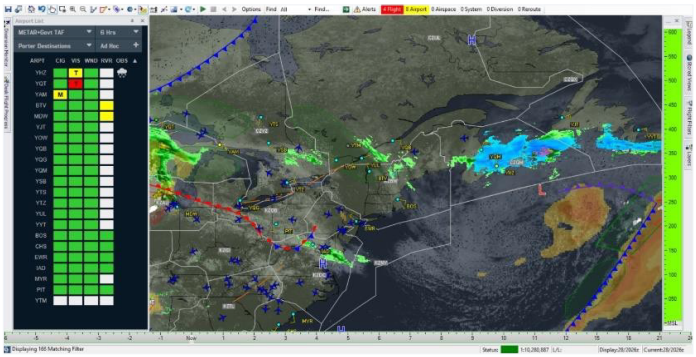
The Weather Company aviation solutions suite offers products that help airlines improve operations with on-ground, pre-flight and enroute weather data, tracking and decision support. The advanced weather solutions help deliver exceptional passenger experiences, increase operational efficiency and asset utilization, and enhance safety and compliance.

Fusion

Fusion is a proactive operations management solution that provides early insight into changing flight, airport, and airspace conditions. By incorporating a streamlined workflow, dispatchers can make decisions with confidence while helping to ensure the safety and efficiency of the airline operations.

- Proactively manage fleet operations by exception with intelligent alerting for flights, airports and airspace.
- Monitor flight progress with ground and satellite based Continuous Global Tracking.
- Monitor aircraft taxiing with surface movement and insights from predictive analytics.
- Application streamlines workflow with data integrations.
- Customizable for a company's required configurations and settings.

Functionality that matters



- Real-time public and proprietary global weather and aircraft situational display.
- Surface Movements and Predictive Analytics
- Robust and intelligent customizable alerting
- Air Traffic Flow Management tool
- Continuous global Automatic Dependent Surveillance-Broadcast (ADS-B) tracking
- Diversion monitoring tool
- Proprietary aviation weather products including Enroute Hazards, RPM Turbulence, Global Lightning, TAPS®, and global radar
- Integrate with existing enterprise systems for flight information, position, and flight plan data

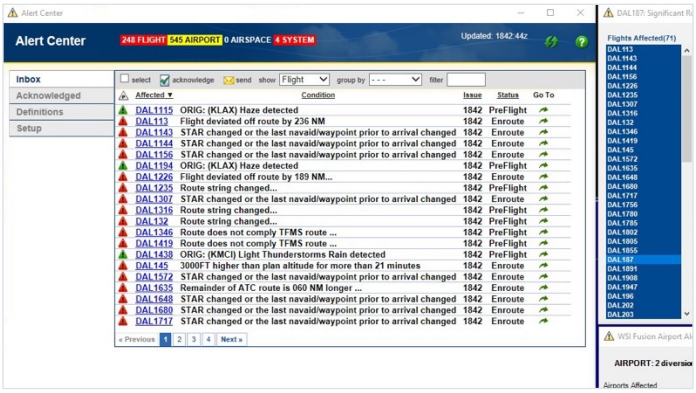
Global Surface Movement

Using FlightAware's network of ADS-B and ASDE-X data feeds, the Global Surface Movement functionality helps enhance situational awareness by providing near-real time surface position and status reports for thousands of aircraft worldwide.

Global Surface Movement uses our state-of-the-art Pangea map with 3D global projections and terrain surface visualizations. This technology creates detailed views of airports including terminals, taxiways and runways to show dispatchers exactly when an aircraft leaves the gates, taxis for takeoff, departs and arrives.

Users can also differentiate between company and non-company aircraft while tracking the movement of baggage carts, fuel trucks and more with views that can be tilted up to 85°.

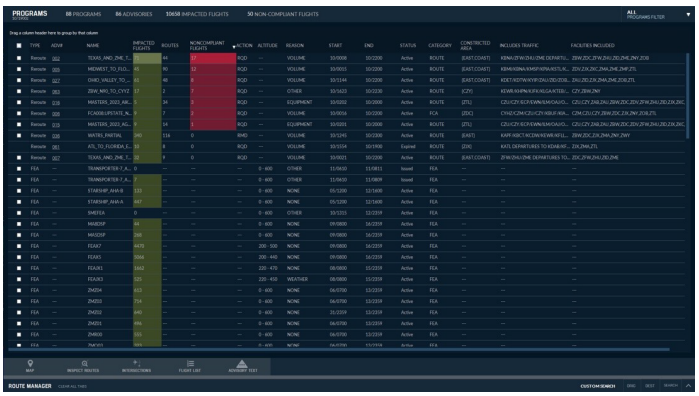
Robust alerting engine



Fusion's intelligence alerting engine allows you to manage your fleet by exception by highlighting impactful desk flight problems so you can act quickly before a problem occurs. The alerting engine is checked every 30 seconds and can evaluate hundreds of rules in seconds to give the latest updates quickly.

- Flight status alerts allow you to check significant deviations from plan, potential go around situations, EDCT changes, ADS-B squawk codes, hazards intersections, and fuel burndowns.
- Airport and Airspace Alerts provide situational awareness for weather and FAA-issued programs.
- Alerts can be sent via ACARS integration with the application.

Air Traffic Flow Management tooling



Air Traffic Flow Management (ATFM) tooling allows users to quickly determine the active FAA programs and see which flights are impacted by the associated programs. Routes that are affected are displayed and non-compliant flights are displayed to quickly understand the impacts of FAA programs on desk management.

- For the users' part of the CDM program, EDCTs can be displayed in the ATFM tool.
- The tool allows for the inspection and plotting of routes and intersections with the applicable programs and advisory text display.

Secure and supported

Fusion is ISO27001 certified. It has an enterprise IT security policy and many standards designed to protect assets, infrastructure and data that were built with influence from several industry security standards and frameworks such as NIST (National Institute of Standards) and ISO (International Organization for Standardization). Security vulnerabilities are continuously assessed and corrective actions such as security patches, fixes and workarounds are implemented in a timely manner based on severity levels.

Fusion is supported by a 24/7 global team of customer support specialists to handle user inquiries and SLA support as needed. Our team can escalate to critical support staff located in the US and worldwide to resolve an issue before it impacts your operations.

Proven value

The Weather Company aviation solutions suite is backed by nearly 30 years of aviation forecasting expertise. Its products enable airlines and airports to proactively manage disruptive weather to help ensure they maintain safe and profitable operations.

- 80% of market share in North America
- Fusion is part of an operationally critical product suite for airlines.
- More than 7000 aircraft rely on total turbulence solutions to mitigate turbulence injuries

Explore The Weather Company aviation solutions →

Customer reviews

"We can now get detailed data for tarmac congestion, helping to avoid ground delays, which, if significant enough, can result in fines of up to $27,500 per passenger for tarmac violations."

– Managing Director, Air Traffic

"It is definitely possible to save fuel with optimized routes. For example, we were recently able to shorten a route around a hurricane by about half an hour with the help of The Weather Company's data – and that's just one flight."

– Flight Controller

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