



How Risk Communicator helped a large U.S. airport improve winter operations

A proactive approach to weather monitoring delivers far better outcomes than forecasting alone at one of the biggest airports in the United States.

Snow, ice, freezing fog, and high winds all impact airport operations during the winter. For up to six months out of a year, flight schedules across the country are at the mercy of these conditions. For example, in just one week during February 2023, more than [15,000 flights were delayed or canceled](#) nationwide.

While you can't control the weather, the sooner and more you know about what could happen can help you better prepare for it. Let's examine how Risk Communicator from DTN elevates winter weather preparedness at a large U.S. airport.

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A need for enhanced operational insights

Each year, more than 70 million passengers embark and disembark from over 600,000 flights at this U.S. airport. When weather causes flight delays or cancellations, it creates a knock-on effect that impacts the entire operation.

The goal is always to:

- Keep the airport open and operating as close to normal as possible
- Support staffing levels
- Maintain schedules and on-time-performance (OTP)

The airport operator felt they were not getting everything they needed to achieve these goals from free weather sites and alternative services. They required more support to make appropriate preparations before adverse weather events.

For example, they wanted to see best and worst-case scenarios for snow and ice amounts, as far ahead as possible, to make plans with greater confidence. They contacted DTN to learn more about its professional weather decision support service, Risk Communicator.



Delivering a higher level of decision support

The service uses the Risk Mitigation Support Cycle to ensure customers can prepare, activate, and evaluate with actionable insights that help monitor and assess risks, provide advice leading up to and during an event, and offer post-storm analysis.

The process follows three key steps:

1. Prepare

It starts in autumn with a pre-winter season workshop with all stakeholders. Here, the focus is on discussing the customer's needs and any operational changes and reconfirming the communications structure. Additionally, action plans are reviewed and re-aligned around where proactive monitoring should begin ahead of significant weather events.

2. Activate

Leading up to an impending weather event, the Risk Communicator proactively engages airport personnel up to seven to 10 days prior, especially around events with significant cold or wintry precipitation. The communication cadence for providing regular updates is established before the potential event. As the weather conditions approach — and once they are underway — the Risk Communicator shares near-constant updates with actionable insights into current conditions, near-term forecast trends, and post-storm weather conditions for clean-up. Around-the-clock weather support from a dedicated meteorologist or a small team of meteorologists during long-duration events is at the heart of what DTN does.

3. Evaluate

The Risk Communicator provides post-event analyses, as needed, with metrics for snowfall, ice amounts, the highest wind speeds, etc. There are also follow-up discussions on how the airport's operational team handled the event, how the Risk Communicator's insights were used, and if changes are necessary before the next event occurs. Then, the process loops back into the preparation phase of the Risk Mitigation Support cycle.

This individualized touch is not available from other weather vendors, making all the difference when times are tough — and the Risk Communicator service extends worldwide so all airports can potentially benefit, regardless of their specific weather risks.



“ The airport’s operations team benefits from Risk Communicator services in many ways. There is higher confidence in making better staffing decisions around periods of the highest impact weather, which leads to greater efficiencies and reduced overtime costs.

This also leads to greater efficiencies in clearing the roads in and out of the airport, the runways themselves, and the tarmac. The service also provides higher confidence and more detailed information that is shared with airport operations, leading to better use of time and collaboration. ”

Brad Nelson, meteorologist and Risk Communicator, DTN

Navigating through inclement weather

As a direct result of implementing Risk Communicator from DTN, the airport operator improved many outcomes. The service provides greater confidence and more detailed weather information, resulting in better and faster decisions — before, during, and after extreme events.

In practical terms, the enhanced communication with both internal and external stakeholders, including staff, passengers, airline management, etc., during adverse weather leads to better efficiency when clearing the runways, tarmac, and surrounding roads, as well as improved staffing around severe weather periods, requiring less overtime.

How the service changed everything

Before partnering with DTN through the Risk Communicator service, the airport often found itself flying blind during the winter. Without the right level of support in the lead-up to adverse events, they did not have the confidence necessary to make the correct preparations.

The results of this confusion and lack of lead time had a significant impact. Some staff could not get to the airport because of frozen roads, so overtime was required to cover absent team members, raising labor costs for the airport. More flight delays and cancellations lead to massive cost increases and damage to the airport’s credibility. Such costs are felt industry-wide; weather impacts result in an estimated \$3 billion in losses each year.

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Implementing DTN Risk Communicator changed everything, allowing the operations team to deliver greater efficiency, fewer delays, and reduced disruptions. As a result, the airport enjoyed significant cost savings — and, more importantly — safer conditions for passengers and staff.

Elevate your weather readiness

Make better decisions that help boost safety and lower costs. Take a closer look at [Risk Communicator](#) today.