



## CASE STUDY

# Texas DOT Improves Preparedness and Response with Transportation-Focused Weather Intelligence

Managing weather risk across Texas requires understanding how changing conditions will affect operations across its 25 districts.

## ABOUT TEXAS DEPARTMENT OF TRANSPORTATION

The Texas Department of Transportation (TxDOT) is responsible for maintaining and operating one of the nation's largest transportation networks. From hurricanes along the Gulf Coast to winter storms in the Panhandle, weather varies dramatically across the state, creating unique challenges for transportation leaders responsible for keeping roadways safe and passable.

Matthew Heinze, the Emergency Management Coordinator for TxDOT, helps support preparedness and response efforts across the agency's 25 districts. His team works to ensure transportation leaders have the information they need to make timely decisions before, during, and after severe weather events.

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## THE CHALLENGE

### **How do you manage weather risk across 25 districts with various environments?**

Managing weather risk across Texas requires more than knowing when severe weather is expected. Transportation agencies need to understand how weather conditions will affect specific regions, roadways, and operations.

A single winter weather event can impact different parts of the state in very different ways. Some districts may experience snow and blowing conditions, while others face ice accumulation or freezing rain. For transportation leaders, those differences can significantly affect resource allocation, operational planning, and response strategies.

TxDOT needed weather intelligence tailored to transportation operations — forecasts that could support decision-making at the district level and help leaders prepare for changing conditions across the state.

*“DTN understands our regions, our roadways, and the operational decisions our transportation leaders need to make before and during severe weather events.”*

## WHY DTN?

### **Transportation expertise when it matters most**

TxDOT partnered with DTN Risk Communicator to gain access to transportation-focused weather intelligence and direct support from professional meteorologists.

“DTN gives us transportation-focused weather intelligence tailored to TxDOT’s 25 districts, not just a general forecast,” Heinze explained. “Their team understands our regions, our roadways, and the operational decisions our transportation leaders need to make before and during severe weather events.”

One of the most valuable aspects of the partnership is the ability to bring a DTN meteorologist directly into TxDOT’s Emergency Operations Center during major weather events; they support preparedness planning, operational briefings, and response activities.

“Having access to a DTN meteorologist in our Emergency Operations Center has been a game changer for TxDOT,” he said. “Their expertise helps us make faster, more informed decisions when severe weather impacts our operations.”

By combining specialized weather intelligence with direct access to meteorological expertise, TxDOT gains operational support before, during, and after high-impact weather events



## OUTCOMES

### Supporting decisions across Texas

Since implementing DTN Risk Communicator, TxDOT has strengthened both preparedness planning and response operations.

The agency regularly incorporates DTN expertise into statewide preparedness activities, including hurricane workshops where transportation leaders receive weather education, seasonal outlooks, and operational guidance from DTN meteorologists. These efforts help improve awareness and readiness before severe weather impacts occur.

During weather events, detailed forecast timing and access to DTN meteorologists help TxDOT make more informed operational decisions and deploy resources more effectively.

For example, during a significant winter storm, the agency used detailed forecasts to understand when freezing temperatures would impact specific areas. This enabled response teams to position materials and resources ahead of deteriorating conditions and improve the efficiency of response efforts.

“Having detailed timing forecasts helps us deploy resources more efficiently and position materials ahead of severe weather impacts,” Heinze said. “That level of precision strengthens both our preparedness and our response.”

Today, TxDOT has greater situational awareness and confidence when making weather-driven operational decisions across its statewide transportation network.

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