OK Snowplows: Turning Winter Operations into Real-Time Traveler Information

By Oklahoma Department of Transportation

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Benefits Statement

Oklahoma Department of Transportation (ODOT) developed OKSnowplows.org to allow travelers to view snowplow activity and road conditions, which provides real-time visibility into snowplow and roadway operations, helps the public make safer and more informed travel decisions during storms, and increases transparency and trust in ODOT's winter maintenance efforts. The Snowplow Naming Contest further enhanced public trust and goodwill by presenting winter operations in a fun, approachable, and educational way.

In this case study you will learn:

1. How public awareness plays a key role in understanding transportation operations
2. Why public engagement increases traveler knowledge and connects the community with the transportation network
3. How the future workforce can be built with current public engagement

Project #220

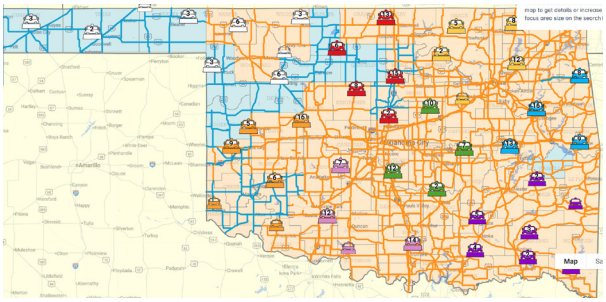
Version Number: 1

BACKGROUND

Oklahoma experiences winter weather events that can significantly impact roadway safety, mobility, and travel reliability. During snow and ice storms, the Oklahoma Department of Transportation (ODOT) historically received increased inquiries from the public regarding road conditions, snowplow activity, and whether travel was advisable. Much of this information was previously shared through static maps, social media updates, or news outlets, which limited the ability of individuals to access real-time, location-specific information. As a result, travelers faced uncertainty during winter weather events, and ODOT had limited opportunities to actively engage the public in understanding operational decisions.

At the same time, ODOT recognized an opportunity to increase public awareness and understanding of snow and ice operations, particularly among younger audiences. Snowplow operations are essential for keeping the state moving during winter storms, yet much of the work happens behind the scenes and often goes unnoticed unless road conditions become hazardous. Engaging the public proactively offered a way to educate citizens about the critical role these operations play in roadway safety and mobility.

These challenges highlighted the need for a Transportation Systems Management and Operations (TSMO) solution that could provide real-time visibility into snowplow and roadway operations, help the public make safer and more informed travel decisions during storms, increase transparency and trust in ODOT's winter maintenance efforts, and engage the public in a creative and educational way. This need ultimately resulted in the development of OKSnowplows.org, a platform that allows users to view live snowplow activity and road conditions, paired with the launch of Oklahoma's first statewide Snowplow Naming Contest, which brought the public, schools, and students into the operational process in a fun, interactive, and memorable way.



TSMO PLANNING, STRATEGIES, AND DEPLOYMENT

The TSMO strategy for this initiative focused on maximizing the value of existing operational data by delivering it through a public-facing platform that was intuitive, engaging, and actionable for travelers. The goal was to transform snow and ice operations data into meaningful traveler information that could support safer and more reliable decision-making during winter weather events.

Planning began with identifying how best to present real-time roadway and snowplow information at a level relevant to users near their homes, along key corridors, and across the statewide system. Snowplow GPS data and winter maintenance operational information were integrated into a new interactive website, OKSnowplows.org. The platform allows users to view active snowplows, current roadway conditions, and winter maintenance activity in real time, providing situational awareness before and during storm events.

To drive early awareness and encourage widespread adoption of the platform, ODOT launched the Snowplow Naming Contest in August, well ahead of the winter season. Students in grades K–12 from across Oklahoma were invited to submit name ideas for snowplows. The public ultimately named 24 of ODOT's 400 snowplows, while district personnel and snowplow truck drivers named the remainder, creating a unique engagement opportunity both internally and externally. This approach

generated early excitement, encouraged families and schools to explore snowplow operations, and fostered a personal connection between the public, ODOT staff, and the fleet.

Deploying both the contest and the website in advance of winter weather ensured the system was fully tested, operational, and familiar to users when major snow events occurred. Once winter storms began, OKSnowplows.org functioned as a real-time operational support tool by reducing uncertainty for travelers and helping them decide whether to delay, modify, or avoid travel. The coordinated deployment of technology, data, and creative engagement resulted in a TSMO solution that effectively supported operational goals, public safety, and widespread community participation.

COMMUNICATIONS PLANNING AND EXECUTION

Communication was a central component of the Snowplow Naming Contest and OKSnowplows.org project, playing a critical role in both public engagement and operational effectiveness. Internally, coordination among ODOT communications staff, operations teams, IT, and agency leadership ensured that snowplow and roadway data were accurate, the website and interactive features were reliable, and messaging was consistent across all channels. This collaboration allowed for seamless integration of real-time operational information with public-facing content, supporting both system functionality and user trust.

Externally, a multi-channel communications strategy was implemented to reach a wide audience and maximize engagement. The Snowplow Naming Contest was promoted through schools, social media, traditional media, and ODOT communication channels, generating excitement statewide and encouraging participation among K–12 students. The OKSnowplows.org platform was promoted both before and during winter storms as a real-time resource for monitoring road conditions, tracking snowplow activity, and making safer travel decisions. Media outlets highlighted the uniquely named snowplows, further extending reach and driving additional public interest in both the contest and the platform.

The contest format successfully made winter operations approachable, fun, and educational, particularly for students and families, while the website provided a practical decision-making tool during severe weather. Messaging consistently emphasized safety, informed travel choices, and appreciation for the crews working around the clock to maintain Oklahoma roadways. By combining operational transparency with creative engagement, the project not only strengthened public trust and awareness but also fostered a personal connection between ODOT personnel, their fleet, and the communities they serve. This integrated communications approach was a key factor in the initiative's overall success.

OUTCOMES, BENEFITS, AND LEARNINGS

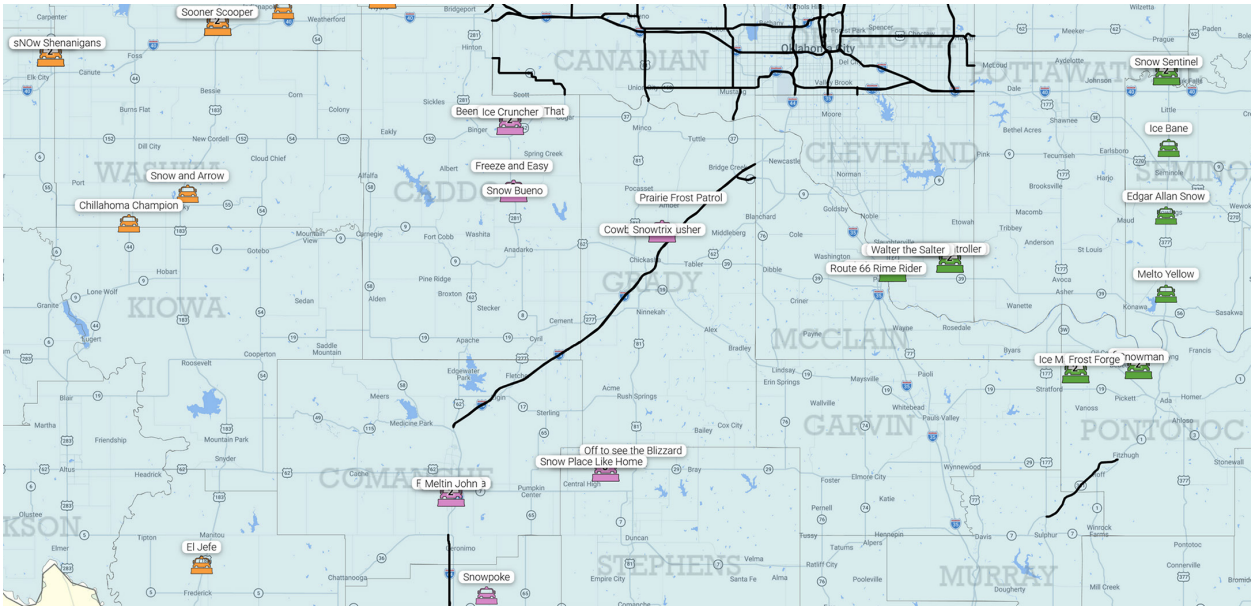
The Snowplow Naming Contest and OKSnowplows.org exceeded expectations in both public engagement and operational impact, demonstrating the effectiveness of combining real-time traveler information with creative public outreach.

During the three heaviest snow days of the winter season, the website received 5.7 million views, clearly indicating a strong public demand for timely, location-specific roadway and snowplow information. Usage increased significantly during active storm periods, confirming that the public relied on the platform to support real-world travel decisions.

A primary benefit of the initiative was improved public decision-making. By allowing users to view real-time highway conditions and active snowplow locations near their homes, the platform helped individuals determine whether travel was necessary or if trips could be delayed during hazardous conditions. This supported safer travel behavior while reducing uncertainty during winter weather events.

The initiative also increased transparency into snow and ice operations. Providing a behind-the-scenes look at snowplow activity helped the public better understand the scale, coordination, and continuous effort required to maintain roadway safety during storms. This visibility reinforced the value of winter maintenance operations and improved public understanding of operational priorities.

The Snowplow Naming Contest further enhanced public trust and goodwill by presenting winter operations in a fun, approachable, and educational way. Engaging students in grades K–12 created meaningful statewide participation and helped foster interest in transportation operations and public service. The named snowplows became a recognizable and memorable element of the system, encouraging repeat visits and sustained engagement.

Key lessons learned include the importance of pairing operational data with creative engagement strategies to drive public awareness and use of traveler information tools. Launching the contest and website ahead of the winter season allowed users time to become familiar with the platform before major storms occurred, contributing to high usage during critical events.

Overall, the success of this initiative has reinforced ODOT's commitment to continuing and expanding real-time traveler information solutions that are both informative and engaging, while supporting safer travel decisions and strengthening public confidence during winter weather operations.