

LEAD STATES TEAM SYNOPSIS

Maintenance Decision Support System (MDSS)



The MDSS is a critical support tool for making winter maintenance decisions.

Activity Period

2007-2010

Cost of LST Effort

\$59,427

Proven Benefits of MDSS:

- more proactive and effective winter maintenance strategies, resulting in improved traveler safety and customer satisfaction
- reduced use of deicing chemicals, resulting in lower costs and less environmental impact
- better allocation of personnel and equipment resources, resulting in lower operational costs

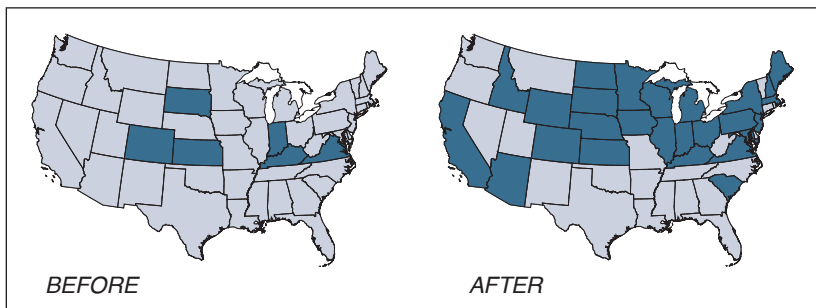
What the LST Did

A Maintenance Decision Support System (MDSS) brings together, in a user-friendly software package, a wide range of information vital to maintaining mobility and improving safety in adverse weather conditions. It allows agencies to monitor conditions statewide and select specific regions, roads — or even intersections — to address conditions as needed. Integrating virtually all information required to support weather maintenance decision-making, MDSS optimizes the efficient deployment of manpower, machinery, and materials.

The overall goal for the LST was to nationally increase adoption of MDSS by 30 percent in two years. Team accomplishments far exceeded this goal. Lead states team activities included providing presentations at conferences, regional workshops, and other meetings. The team also developed a presentation CD/DVD and an MDSS informational brochure. The CD/DVD was distributed to conference attendees, who were encouraged to use the presentation within their own organizations to educate and influence other key personnel. Finally, the team developed several case studies and testimonial statements and offered live web casts of storm events to assist other states in understanding benefits offered by MDSS.

The extent of success in implementing MDSS across the country was greatly facilitated by Transportation Pooled Fund Study TPF-5(054), an 18-state effort to promote broad use of MDSS. The work of this study and the lead states team was well coordinated, with South Dakota leading both efforts. The FHWA was also greatly involved, offering two versions of their MDSS road shows.

What Was Accomplished



In the BEFORE map, darker shading indicates lead state team involvement. Darker shading in the AFTER map indicates use of MDSS as of April 2011 (information courtesy of FHWA).

LST Members

David Huft, Chair,
South Dakota Department of Transportation

Phillip Anderle,
Colorado Department of Transportation

David Cornett,
Kentucky Transportation Cabinet

Tony McClellan,
Indiana Department of Transportation

Ray Murphy,
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Steve Palmer,
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