



NEWS RELEASE

Editorial Contact:

Jennifer Grasswick

Account Manager

Creative Communications Consultants, Inc.

612-677-2185

jgrasswick@cccinc.com

Idaho Transportation Department cuts winter maintenance spending and reduces accidents on icy and snowy roads by over 25 percent

Snowplow trucks upfitted with the SpreadSmart Rx electronic spreader control system from Cirus Controls and RWIS sites installed throughout the state are key technological components in ITD's effective Winter Performance Measurement System.

MINNEAPOLIS – November 3, 2015 – Three seasons after implementing its Winter Performance Measurement System, the Idaho Transportation Department (ITD) has cut its winter maintenance spending by 29 percent — from \$30 million in 2011/2012 to \$21.4 million in 2013/2014 — and reduced its three-year average of accidents on icy and snowy roads by 27 percent. In addition to improving winter driving conditions, ITD also met and exceeded its goal of travelers not being impeded by winter storms at least 55 percent of the time. In the 2013/2014, ITD's mobility percent was 59 and in 2014/2015 it improved to 73 percent.

"Idaho's success is largely based on the technology we used to support the Winter Performance Measurement System. By upfitting our snowplow trucks with the [SpreadSmart Rx](#) electronic spreader control system from [Cirus Controls](#) and installing RWIS (road weather information system) sites throughout the state, ITD can now see exactly what treatment its snowplow trucks executed at RWIS locations and match that specific material application data and timing to the RWIS road surface data, before and after treatment, to evaluate the effectiveness of its winter road maintenance operations," said Dennis Jensen, ITD mobility services–winter maintenance coordinator.

7165 Boone Avenue N, Suite 190, Minneapolis, MN 55428

Tel: 763-493-9380 Fax: 763-493-9340

www.ciruscontrols.com

In addition to providing accurate and reliable data on the amount and type of materials applied to winter road surfaces, enhanced with GPS location data and nearly real-time reporting, the new SpreadSmart Rx electronic spreader control system being installed on ITD's fleet of 450 snowplow trucks will also "regulate the rate of salt and other deicing materials applied to road surfaces based on a snowplow truck's speed, location and road surface temperature," said Paul Mortell, CEO and founder of Cirus Controls.

To date, ITD has installed the new spreader control system on 288 of its snowplow trucks. ITD anticipates having its entire fleet equipped within the next two years.

The primary objective of the Winter Performance Measurement System is to measure how quickly the snow and/or ice surface is reduced and good traction or grip is restored to the roadway surface. To accomplish this goal, ITD developed a Winter Performance Index Report that uses the three indices of storm severity, mobility and performance.

Snow events are normalized through the storm severity index, which is calculated by adding the maximum wind speed plus the maximum layer or layers of ice, snow and/or water plus (300/minimum surface temperature.) The mobility index is the percentage of time the road surface traction or grip is above 0.60 while there is precipitation on the roadway during freezing surface temperatures.

The performance index is the duration of time the roadway surface grip is below 0.60 divided by the storm severity index, i.e., how quickly road surface grip is restored compared to the severity of the event. The performance index updates snowplow operators and winter maintenance managers on the effectiveness of deicing treatments applied to road surfaces by snowplow trucks.

Each of the 127 RWIS sites located throughout the state use sensors to sample a wheel track on a road surface and measure the layers of ice, snow and water along with the temperature and condition of the roadway surface. Other elements measured include air temperature and humidity, wind speed and precipitation and visibility. The RWIS sites use an algorithm of sensor information to determine the road

Idaho Transportation Department cuts winter maintenance spending and reduces accidents on icy and snowy roads by over 25 percent

Page 3

surface's "grip coefficient." This formula is then used to calculate the mobility index and performance index in the Winter Performance Index Report.

"An important benefit of the Winter Performance Measurement System and its Winter Performance Index Report is that ITD operators and managers have the data to evaluate each individual deicing treatment applied by snowplow trucks upfitted with electronic spreader controls and the ability to drill down to the effectiveness per lap," said Jensen. Now, and in the future, this data will give ITD operators and managers the knowledge needed to evaluate operations and develop best management practices.

"Our best practices will provide more consistent operations statewide and continue to cut winter maintenance costs and lower the number of accidents on winter roads by reducing adverse driving conditions," concluded Jensen.

About Cirus Controls

Cirus Controls designs, engineers and manufactures central hydraulic systems, electronic spreader controls, advanced plow controls and innovative telematics-based performance management systems for snowplow trucks. The [SpreadSmart Rx™](#) electronic spreader control system and [GPS DataSmart™](#), an award-winning, web-enabled winter road maintenance system, give DOTs and municipalities tools to make snow and ice control operations more accurate, cost-effective and environmentally friendly. Regional sales representatives and dealers are available throughout the U.S. and Canada. For more information, contact Cirus Controls at 763.493.9380 or info@ciruscontrols.com. Learn more at www.ciruscontrols.com.

7165 Boone Avenue N, Suite 190, Minneapolis, MN 55428

Tel: 763-493-9380 Fax: 763-493-9340

www.ciruscontrols.com

Idaho Transportation Department cuts winter maintenance spending and reduces accidents on icy and snowy roads by over 25 percent

Page 4

Photos



Photo A: The Idaho Transportation Department is charged with snow and ice control on more than 12,000 lane-miles covering mountain passes to rolling hills and valley floors.

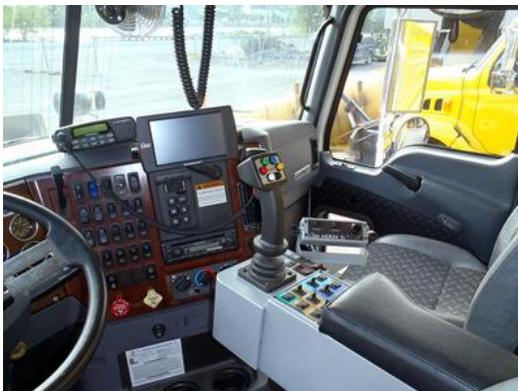


Photo B: An Idaho Transportation Department snowplow truck equipped with the SpreadSmart Rx electronic spreader control system from Cirus Controls.

###

7165 Boone Avenue N, Suite 190, Minneapolis, MN 55428

Tel: 763-493-9380 Fax: 763-493-9340

www.ciruscontrols.com