

# **NCHRP Domestic Scan 07-03 Winter Maintenance**

## **Webinar on Six-Month Survey Results**

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CTC & Associates LLC  
November 17, 2010

## Facilitators

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- ❑ Patrick Casey, Investigator  
CEO of CTC & Associates
  
- ❑ Dylan Casey, Co-Investigator  
CTC Associate  
Faculty, St. John's College, Annapolis

# Scan Participants

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- ❑ Benjamin McKeever, USDOT, co-chair
- ❑ William Hoffman, Nevada DOT, co-chair
- ❑ Steven Lund, Minnesota DOT
- ❑ Terry Nye, Pennsylvania DOT
- ❑ Dave Ray, Ohio DOT
- ❑ Michael Schwartz, Virginia DOT
- ❑ Rodney Pletan, SME

# Accelerating Innovation–Tracing

## Domestic Scan Impacts NCHRP 20-68B(02)

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- ❑ Review of the effectiveness of the Domestic Scan Program in fostering the implementation of innovative technologies and practices
- ❑ Special interest in evidence of technology transfer beyond original core participants
- ❑ Continuation of a more in-depth review completed for two pilot scans

# NCHRP Domestic Scan Project Panel

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- ❑ Harold R. Paul, Director LTRC (chair)
- ❑ Andrew Lemer, TRB
- ❑ Shane Brown, Washington State University
- ❑ David M. Burk, FHWA
- ❑ Nancy L. Chinlund, CALTRANS
- ❑ Marsha Fiol, Virginia DOT
- ❑ Rick Kreider, Kansas DOT
- ❑ Jim McDonnell, AASHTO
- ❑ Mark R. Norman, TRB
- ❑ Keith M. Platte, AASHTO
- ❑ Glenn Roberts, New Hampshire DOT
- ❑ Amy Schutzbach, Illinois DOT
- ❑ Mark Van Port Fleet, Michigan DOT

# Survey Goals

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## Identify:

- Progress toward implementation of technologies and practices identified in each scan's implementation plan
- Benefits of the Domestic Scan Program to you, your agency, and industry as a whole
- Completed or planned dissemination activities
- Names of individuals (beyond participants) who have heard about scan findings

# Webinar Goals

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- ❑ Review and discuss survey results
- ❑ Share successes and challenges in implementing scan technologies and practices
- ❑ Reconnect with fellow scan team members
- ❑ Discuss role of scan participation once the final report is complete

# Survey: Conduct of Scan

**Conduct of Scan. Please rank each of the following scan program features in terms of its contribution to the overall value of this particular scan tour, where 1 is “not important” and 5 is “extremely important.” If it did not apply to your scan, please pick N/A (Not Applicable).**

Answer Options	Not Important				Extremely Important		N/A	Response Count
Preparatory materials and meetings in advance of the scan tour	0	0	0	1	3	1	5	
On-site visits to view the subject technology or practice	0	0	0	0	5	0	5	
Face-to-face technical exchange with host state personnel and other scan participants	0	0	0	1	4	0	5	
Final report of scan findings	0	0	0	1	4	0	5	
Post-scan consultation with host state personnel and other scan participants	0	0	0	0	3	2	5	



# Survey Results: Scan Outcomes

**Scan Outcomes. Please rank each of the following scan program outcomes in terms of its contribution to the overall value of this particular scan tour, where 1 is “not important” and 5 is “extremely important.”**

Answer Options	Not Important		Extremely Important		Response Count	
Introduction to a new technology or practice	0	0	0	1	4	5
Clearer understanding of a new technology or practice	0	0	0	0	5	5
Identification of one or more individuals at a host state to call on as a future resource	0	0	1	1	3	5
Identification of one or more scan participants to call on as a future resource	0	0	0	2	3	5
Information with which to <u>begin</u> implementation of a technology or practice at your agency	0	0	0	1	4	5
Information with which to <u>continue</u> implementation of a technology or practice at your agency	0	0	1	1	3	5

# Scan Results: Value of Scan

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*In Ohio we began using what was learned from the scan and we had the ability to push this information out to our districts. Also, several times I have been able to get help and advice for winter maintenance practices from Nevada, Pa., Va., or Minnesota because of contact the scan provided from other scan members.*

*Identifying effective practice/technology but providing "how our organization got there" and the missteps/decision-making process is very helpful for sharing agencies.*

# Survey Results: Implementation

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**Did your participation in the scan facilitate the implementation of any new practices or technologies?**

Yes – 3    No – 1

## **Completed Implementations:**

*Started a GPS/AVL pilot program in Ohio for our snowplow fleet.*

*Use of weather services - sharing information - better prepared*

*MDSS pilot implementation for this winter for PennDOT. Savings TBD*

*Reinforces some activities that were ongoing including: explore expanded tow plow opportunities, continue with deployment of maintenance decision support system, and increase use of flexible plow blades*

*Made budget recommendations in Ohio for field research programs as we saw in other states*

# Survey Results: Implementation

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## Completed Implementations:

*Double walled Brine Tank vs. Containment Facility \$5K savings in one facility*

*Started to evaluate the tow plow in Ohio that we saw in other states.*

*V box Truck Slide in Unit for pre-wetting and salt spreading. Savings/Efficiency TBD*

*The Scan reinforced procedures for winter snow and ice control that we were already doing in Ohio by demonstrating in several other states that they were also successful.*

*Automated Vehicle Locator. Savings/Efficiency TBD*

*Joma Rubber mounted carbide cutting edges for snow plow. Savings \$1100/trk/year*

# Survey Results: Implementation

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**Any implementations planned for the next year?**

Yes – 3    No – 1

**Planned Implementations:**

*Use of MDSS*

*Expanded pre-wetting program*

*Consideration of the use of wing plows*

*Additional/New Brine Manufacturing Facilities*

*Calcium Chloride Brine Solution anti icing*

*Beet Juice, Ice Bite/Brine solution for pre-wetting/anti-icing*

# Survey Results: Implementation

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- ❑ Number of respondents who attempted an implementation without success: *none*
- ❑ Number of contacts provided regarding current or planned implementation activities: *5*
- ❑ Number of contacts outside the agency provided: *one*

*Non team-member contacts regarding implementation (and even dissemination) are essential to tracing the extent of technology transfer attributable to the scan.*

# Survey Results: Dissemination

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Three respondents listed a variety of talks and publications:

- APWA National Congress
- PA Department of Transportation Expanded Staff Meeting
- Internal department presentations to district engineers
- Ohio Department of Transportation District Leadership Event
- N/E Ohio Snow and Ice Technologies
- PIARC/International Winter Road Congress, Quebec

# Discussion

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- ❑ Survey results
- ❑ What have been the successes and challenges in implementing scan technologies and practices?
- ❑ How does the scan fit in with the way you obtain and transmit knowledge about practices and technologies in your work?



## Next Steps

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- ❑ Final participant survey in six months
- ❑ Survey of accumulated contacts in six months – tracing impact of scan beyond initial participants

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