



# Maintenance Peer Network

TRB/AASHTO SCOM Conference

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Des Moines, Iowa

July 22, 2015



# Agenda

**Objectives of MPN**

**Steering Committee**

**Format of Workshop**

**Regional Workshops & Topics**

**Key Takeaways from Workshops**

**Research Ideas**

**Reports**

**Questions**



# Maintenance Peer Network

A Guide to Collecting and Sharing Information to Improve Highway Maintenance Practices

April 2014



Sponsored by FHWA in Partnership with:

- AASHTO
- ARTBA
- AGC
- AMOTIA

## What is MPN?

- Recommendation of AASHTO SCOM
- Patterned after the Construction Peer Network Workshops
- Steering Committee (includes SCOM Technical Work Group Leadership)
- Collect and Document current Good Practices
- Seek out new Technology & Innovation
- Sharing of information among State Maintenance Engineers & Partners
- Opportunity to interact with peers and other partners
- Learn from others
- Conference proceedings will be posted on SCOM website

# Steering Committee

Jennifer Brandenburg, Chair

Chris Christopher

George Conner

Steve Lund

Steve Cook

Tim Cunningham

Jerry Hatcher

Berry Jenkins

Allison Klein

Mark Robinson (DBI)

Bryan Cawley

William Beatty

Marc Hoelscher

Jason Harrington

Jameelah Hayes

Tom Hufnagel (IDOT)

NCDOT

WsDOT

ALDOT

MNDOT

MIDOT

KDOT

TDOT

AGC (NC)

ARTBA

AMOTIA

FHWA(DC)

FHWA(NC)

FHWA(SD)

FHWA(DC)

AASHTO

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## Format of Workshops

- Workshops held in 4 different regions of the country
  - Approximately 13 states per region
- 2-Day Workshops (½ day, Full day, ½ day)
- MPN covered the cost for 2 people from each state to attend - Travel, lodging, meals, workshop materials
- Other partners (AGC, ARTBA, AMOTIA, AASHTO, FHWA)
- Topics based on results from PI Tool for each region
- Focused on no more than 6 main topics to allow in depth discussion
- Included speakers from other regions based on Topic

## Workshop Agenda

### Preliminary Agenda

SESSION 1: Afternoon, Day 1		
Duration	Topic	Speaker
30 min.	Welcoming remarks; purpose of workshop and expected outcomes	Moderator
45 min.	Introductions and brief agency summaries	All Participants
15 min.	Break	
45 min.	Exchange Topic #1: Introduction and Presentation	Presenter
45 min.	Exchange Topic #1: Q&A and Roundtable Discussion	All Participants

### SESSION 2: Morning, Day 2

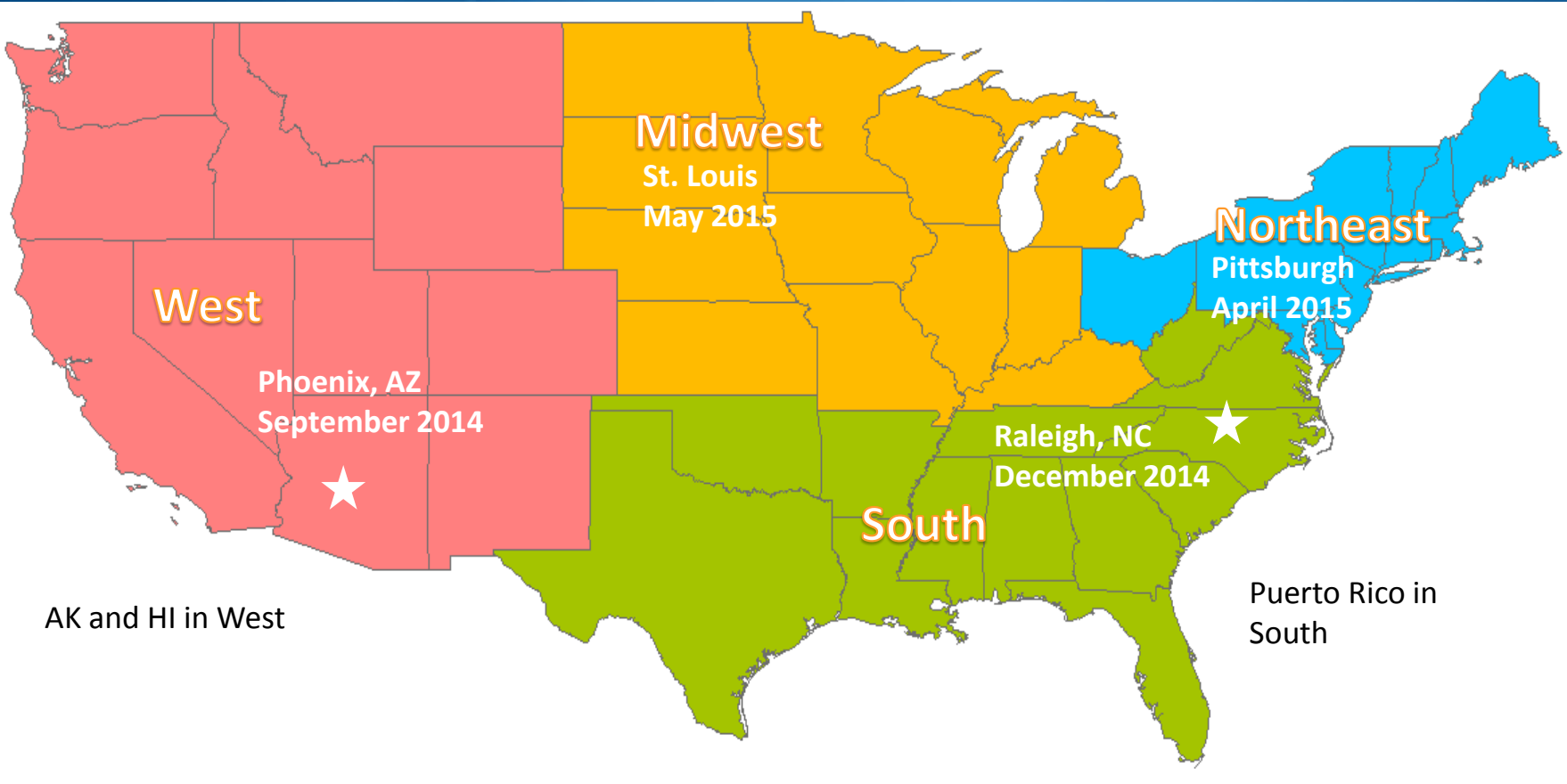
Duration	Topic	Speaker
45 min.	Exchange Topic #2: Introduction and Presentation	Presenter
45 min.	Exchange Topic #2: Q&A and Roundtable Discussion	All Participants
15 min.	Exchange Topic #2: Summary	Moderator

Duration	Topic	Speaker
15 min.	Opening Remarks	Moderator
45 min.	Exchange Topic #4: Introduction and Presentation	Presenter
45 min.	Exchange Topic #4: Q&A and Roundtable Discussion	All Participants
15 min.	Exchange Topic #4: Summary	Moderator
15 min.	Break	
45 min.	Exchange Topic #5: Introduction and Presentation	Presenter
45 min.	Exchange Topic #5: Q&A and Roundtable Discussion	All Participants
15 min.	Exchange Topic #5: Summary	Moderator

### SESSION 4: Morning, Day 3

Duration	Topic	Speaker
15 min.	Opening Remarks	Moderator
45 min.	Exchange Topic #6: Introduction and Presentation	Presenter
45 min.	Exchange Topic #6: Q&A and Roundtable Discussion	All Participants
15 min.	Exchange Topic #6: Summary	Moderator
15 min.	Break, Complete Workshop Evaluation	
60 min.	Workshop Wrap-up: Themes, Issues and Conclusions	Moderator

# MPN Regions



Number of States in Region

- Northeast – 13
- South – 14
- Midwest – 12
- West – 13



## West Region Topics

<b>TOPIC</b>	<b>PRESENTER</b>
How to justify increases in funding levels	Tony Tavares, Caltrans
Electronic capture of maintenance activities	Joe Schmit, WSDOT
Establishing performance measures for winter maintenance	Steve Lund, MNDOT
Integrating maintenance management systems with other systems	Kent Ketterling, WYDOT
Tying maintenance program funding to level of service	Jennifer Brandenburg, NCDOT
Establishing a formal Asset Management Plan	Anita Bush, NVDOT

## West Region Key Takeaways

- Adequate maintenance of transportation infrastructure has far-reaching effects to economic development and vitality
- Building trust among the public, elected officials, and management is key
- Clear understanding of how new technology is being used and the real-world experiences of the users
- Measure what matters and make sure that measurement initiatives are sustainable
- Care should be taken to ensure that the tracking of some assets does not increase the deferred maintenance cost of assets that are not being tracked
- Needs- and performance-based budgets are the new reality but may shift funds in unexpected ways from historical budgets
- Asset management offer the opportunity to articulate the story; document uncertainties, trade-off decisions, and risks

## South Region Topics

TOPIC	PRESENTER
Data Collection, Capture, and Usage	Jon Wilcoxson, KYTC
Need-Based Budgeting	Jennifer Brandenburg, NCDOT
Using customer surveys to set LOS targets	Beth Wright, MoDOT
Asset Management Systems, Implementation, and Long-Term Staffing	Vince Latino, LA DOTD and Heath Patterson, MDOT
Training and Succession Planning	Jim Feda, SCDOT and Scott Capps, NCDOT
Outsourcing Maintenance	Mike Sprayberry, FDOT

## South Region Key Takeaways

- Mobile data collection is the future
- In-house IT staff eases device procurement and application development process
- Good inventory and condition data is essential for needs-based budgeting
- Needs and performance based budgets allow for tradeoff analysis
- Customer surveys can help an organization prioritize agency's work program
- Essential that managers are well trained in the use of management systems
- Training is critical for the future of all DOTs and a key component of employee retention
- Performance based and work order directed contracts have place in infrastructure management
- Performance based contracts are another resource to fill a gap in delivering the maintenance program

## Northeast Region Topics

<b>TOPIC</b>	<b>PRESENTER</b>
<b>Fleet Management for prosperity</b>	<b>Jim Smith, PennDOT &amp; Tim Cunningham, KDOT</b>
<b>Environmental Stewardship, Commitments, and Compliance</b>	<b>Russel Yurek, Maryland SHA</b>
<b>GPS and AVL Systems</b>	<b>Matthew Spina, RIDOT</b>
<b>Job Order Contracting for Efficiencies</b>	<b>Chuck Drda, ConnDOT</b>
<b>Asset Management and Performance Measures</b>	<b>Thomas Lyden, Ohio DOT</b>
<b>Human Resources: Equitable Compensation</b>	<b>Scott Rogers, Vtrans &amp; Scott Capps, NCDOT</b>

## Northeast Region Key Takeaways

- Using objective measures (lane miles, personnel, annual snowfall, etc.) to Right Size Equipment Fleet
- Need accurate and appropriate data to manage Fleet Effectively
- Fleet Management is the responsibility of everyone
- Equipment Buy-Back Programs have potential to save DOTs money
- Environmental Stewardship and proactive Commitments are better than court-ordered requirements
- Involve everyone in the agency helps to create ownership in Environmental Stewardship
- GPS/AVL Systems provide a lot of useful information to managers, especially during winter snow events
- Establishing On-call contracts can provide a significant savings in administrative cost and provide valuable resources just-in-time
- Compensating employees according to labor market evaluations is a way to retain a valuable workforce



## Midwest Region Topics

<b>TOPIC</b>	<b>PRESENTER</b>
<b>Determining Performance Measures for Highway and Bridge Assets</b>	<b>Lonnie Watkins, NCDOT</b>
<b>Processes for Identifying and Implementing Good Ideas Throughout Your Agency</b>	<b>Beth Wright, MoDOT</b>
<b>Planning for Disaster Response</b>	<b>Brad Darr, NDDOT</b>
<b>Electronic Capture of Assessments, Work Crews, etc. through Electronic Devices</b>	<b>Jon Wilcoxson, KYTC</b>
<b>Modern Management Systems and Inventory of Assets</b>	<b>Jason Brinkman, ITD</b>
<b>Winter Maintenance Operations</b>	<b>Steve Lund, MnDOT &amp; Steve Cook, MDOT</b>

## Midwest Region Key Takeaways

- Performance Measures are an effective communication tool for funding and needs justification
- Target setting for Performance Measures is an evolving science
- Public facing dashboards are useful in reporting to the public
- When privatizing maintenance work, important to establish appropriate and adequate performance measures
- Show-casing innovative solutions from rank and file employees creates a fertile field for innovation
- Disaster response plans can be used on a multitude of different types of events (snow, floods, tornadoes, hurricanes)
- Partner with other agencies to assist with information data collection and dissemination
- Not one Electronic tablet serves the needs of DOTs; Tablets fit to need
- Have to consider Data and storage issues when implementing new electronic devices

## Research Idea – MQA & Performance

- **Best practices for condition assessment evaluations. Re-establish MQA. How and if it should be used for resource allocation**
- **Expand recent MQA synthesis to determine more robust use of MQA process for planning and budgeting as well as measuring performance at lower levels of organization**
- **Consistent MQA (basic elements) between states**
- **Suggest FHWA sponsor another "data collection rodeo" to follow up on the one done in 2008 and demonstrate technical capabilities**
- **Setting LOS guidelines or criteria based on customer expectations**

## Research Idea – AVL/GPS

- With DOTs moving more toward AVL technology, the development of the severity index/performance measure talk by MN was excellent. We need a faster resolution on the development of a DOT standard AVL package that Clear Roads is working on.
- Materials other than salt. Cheaper and less corrosive
- GPS/AVL systems; how are states managing all the Data created from AVL systems. What is optimal, and how long to storage the information?

## Research Idea - Synthesis

- Equipment buy-back program such as KS DOT does, standardized cost-benefit methodology, performance measures (standardized) for fleet issues
- Success stories in increasing maintenance funding and methodologies for doing so
- What inventory data states are collecting and how are they collecting the data
- Mobile applications for measuring weather parameters
- State's AVL systems
- State's innovative practices with case studies. Maintenance research database-national scope
- Performance measures related to maintenance and baseline for standard measures

# Report by Region with Copies of each Presentation and query tool



- West and South Complete
- Northeast and Midwest by end of August



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**AASHTO Subcommittee on Maintenance (SCOM)**

**The 2015 SCOM Annual Meeting is July 18-23, 2015  
Des Moines, Iowa**

[Registration and Meeting Details](#)

**Maintenance Peer Network (MPN)**

MPN Regions

AK and HI in West

**The Maintenance Manager - Newsletter Spring 2015**  
 2014 AASHTO Annual Meeting- SCOH Operations Breakfast Meeting  
 2013 AASHTO Annual Meeting- SCOH Operations Breakfast Meeting  
 SCOM - What is AASHTO? Webinar February 4, 2015  
 How the Emergency Management Assistance Compact (EMAC) works

More information  
 Visit  
**AASHTO SCOM Website**  
[Maintenance.transportation.org  
 /Pages/default.aspx](http://Maintenance.transportation.org/Pages/default.aspx)



# Questions?

**AASHTO**  
THE VOICE OF TRANSPORTATION

**ARTBA** American Road & Transportation Builders Association

U.S. Department of Transportation  
**Federal Highway Administration**

**AGC of America**  
THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA  
Quality People. Quality Projects.



**AMOTIA**  
Association for the Management and Operations of Transportation Infrastructure Assets