

# **AASHTO Subcommittee on Maintenance 2008 Business Meeting**

Monterey, California

July 18, 2008



# Task Force/Focus Group Reports

# Research Focus Group

*Chris Christopher, WSDOT- Chair*

# 2008 SCOM-SCOE-SAM Joint Committee Meeting



# Pavements Task Force



*Eric Pitts, GADOT – Chair*

*Tim Lattner, FLDOT – Vice Chair*

**The purpose of the  
Pavement Task Force  
is to promote the  
preservation of pavements.**



# **7/14/08 AGENDA**

***Task Force Work Plan & Activities Update***

***National Center for Pavement Preservation Update***

***Larry Galehouse, NCPP Executive Director***

***FHWA Pavement Preservation Activities Update***

***Joe Gregory, FHWA***

***Foundation for Pavement Preservation Activities  
Report***

***Topics Abstracts for 2009 Joint SOM/TRB Meeting***

***Frank Lisle, TRB***

***Review of NCHRP Research***

***Amir Hanna, NCHRP Senior Program Officer***

# **2008 Accomplishments**

**3 ½ hours of formal meetings**

**27 Participants on 7/14/08**

**16 Participants on 7/16/08**

**And 2 Breakfast Meetings (6:30 am – 8:00 am)**

***Workplan and Activities Updates***

***2009 AASHTO / TRB Abstracts***

***5 Resolutions***

***2 Problem Statements***

# Statement of Direction and Purpose of the Task Force

## WORKPLAN:

- Activity Support
- Training Support
- Research Support

# Training Support

Support the development of new pavement preservation classes, and encourage agency top management to support the NHI classes on pavement preservation through the scheduling of the existing classes in their states.

# Research Support

- 1) Assist in the Implementation of the Pavement Preservation Roadmap.
- 2) Promote new and on-going research for Pavement Preservation.
- 3) Support additional evaluation of the SPS-3 and SPS-4 projects in the Long Term Pavement Performance (LTPP) Database, including the development of life cycle cost analysis of the particular maintenance treatments used on those projects.
- 4) Support the Pavement Preservation Scan Tour demonstration project implementation.
- 5) Represent State agency perspectives on the TRB Task Force for Roadway Pavement Preservation.
- 6) Promote the utilization of the National Center for Pavement Preservation for research management.
- 7) Encourage the endorsement of previous research documents by AASHTO.

# AASHTO/TRB Abstract Selections

- Performance of Failed Flexible Pavements Stabilized with Cement
- Concrete Pavement Preservation and Rehabilitation to Meet Sustainability Demands
- Implementation of a Pavement Preservation Program in Illinois
- Case Study of Skid Resistance of 4.75mm Asphalt Mixtures
- Field Performance of Ultrathin Surface Treatment in Louisiana
- From Dirt Roads to an Engineering Excellence Award: An Engineering Success in Fairfield County, South Carolina

# Resolutions

- 08-01 Thanking Caltrans
- 08-02 Concerns on Truck Weight Increases (with Bridge Task Force)
- 08-03 AASHTO Public Information Campaign (repeated from 2004, 2005, 2006)
- 08-04 TSP Roadmap Endorsement
- 08-05 TSP2 Expansion

# Research Problem Statements

- Synthesis on Effective Transportation System Preservation Communication and Marketing Programs
- Endorsement of the Management Systems Focus Group statement on the Costs of Deferred Maintenance.

# Activity Support

- 1) Support the Use and Oversight of the AASHTO Transportation System Preservation Technical Services Program (TSP<sup>2</sup>)
- 2) Develop a Pavement Preservation chapter that can be included in the new AASHTO Mechanistic-Empirical Pavement Design Guide (MEPDG).
- 3) Support the Publication of Supplement to the AASHTO Transportation Glossary (“Pavement Preservation Glossary for Field Practitioners.”)
- 4) Support the National Center for Pavement Preservation activities.
- 5) Support the Development and Expansion of Regional Pavement Preservation Partnerships
- 6) Participate in Technical Sessions, Workshops, Conferences, TRB activities, the Pavement Preservation Expert Task Group (PP ETG) meetings, and more.
- 7) Develop and support AASHTO resolutions and research topics concerning Pavement Preservation.

# Roadsides & Environment Task Force

*Mark McConnell, MSDOT – Chair*

*Mike Mattison, NE DOR – Vice Chair*

# Roadsides & Environment TF

- Review of 2007-2008 TF Work & Last Year's Topics (cont.)
  - Native Species & Baling Hay on Right of Way Survey
    - Results available
    - Place on AASHTO website?
  - Potential Research Topics
    - Graffiti Prevention & Abatement: Assess Problem and Identify Best Practices
      - Was not brought forward by SCOM because of low priority
  - Transportation and Environmental Research Ideas (TERI) Database
    - Environmental Research Funding Available

# Roadsides & Environment TF

- 2008-2009 Work Plan
  - Research
    - Project 14-16 – “Guidelines for Vegetation Management” completion and publicity
      - Mark will alert TF upon completion
      - Consider making it an AASHTO Guide
      - Discuss best ways to get it in the hands of those who need it
  - Maintenance Management Newsletter
    - Provide topics to Celso from TF
  - Speakers for SCOM 2009
    - TRB Abstracts were prioritized

# Roadsides & Environment TF

- Meeting Discussion Items
  - Edge drain design, construction and maintenance - ADS Presentation
  - Open Discussion
  - National Safety Rest Area Conference
    - Have been asked to have a panelist from Roadsides TF
    - Any interest for NSRAC 2008 in Seattle, Washington

# Roadsides & Environment TF

- Briefing of Chairman's Meeting
  - 2008 AASHTO Action Agenda
  - TRB Prioritization
  - Suggestions for e-learning – Herbicide Applicator Training
- Review of 2007-2008 TF Work & Last Year's Topics
  - NCHRP 14-16 – “Guidelines for Vegetation Management”.
    - Mark is on the panel.
    - WeedSmart LLC completed 2<sup>nd</sup> draft
    - Ian Heap – Report goals of guidelines to SCOM on Tuesday July 15, 2008
  - Reported on the National Safety Rest Area Conference held in Minneapolis, MN in October 2006

# Roadsides & Environment TF

## – Research Suggestions

- Best Practices in Fuel Conservation and Carbon Footprint reduction in DOT operations
  - Submitted in conjunction with the Snow & Ice Task Force and the Equipment Focus Group
    - » Quick Survey
    - » 20-7 Proposal
- Identifying and mitigating the effects of flooding on highway maintenance.
- Graffiti Prevention and Abatement: Assess Problem and Identify Best Practices

# Roadsides & Environment TF

- New Issues to Discuss (cont.)
  - Truck Parking Ramps
    - Survey by Tennessee
  - Parking at Rest Areas
    - Survey by West Virginia
  - Litter
    - Best Practices
    - Solutions Proven to be Effective

# Roadsides & Environment TF

- New Issues to Discuss (cont.)
  - Encroachment Permit Issues
    - Seismic Surveys
    - Directional Boring
    - Utility Material Requirements
    - Large Developments – New MUTCD Rule
  - Customer Surveys
    - How many states use them?
    - Are they successful? Change priorities?
    - Has roadside maintenance suffered?

# Questions???

2008 SCOM-SCOE-SAM  
Joint Committee Meeting



# Bridges Task Force

*Janice Williams, LADOTD – Actg. Chair*

# Bridge Task Force Meeting, Outline

- Attendees
- Agenda, Business Meeting
- Presentations
- Planned Activities

# Bridge Task Force Meeting

## Attendees:

- July 14<sup>th</sup>, 6 off-site, 27 on-site
- July 16<sup>th</sup>, 7 off-site, 24 on-site

# Bridge Task Force Meeting

## Agenda, Business Meeting:

- Resolution(s)
  - AASHTO Bridge Task Force Bridge preservation strategic plan be adopted as an AASHTO Plan
  - Include bridge preservation track as part of TSP2
  - Endorse TSP2 R&D roadmap which includes 25 BP RNS at \$13M

# Bridge Task Force Meeting

## Agenda, Business Meeting:

- Resolution(s)
  - Deferred Maintenance
  - Opposition to raising truck weight (need additional language)

# Bridge Task Force Meeting

## Agenda, Business Meeting:

- Abstracts for joint AASHTO/TRB Mtg:
  - Oregon DOT SHM Program (006A)
  - AM Plan for Ambassador Bridge (025A)
  - Wireless Sensor for Monitoring CL Ingress in Concrete (028A)

# Bridge Task Force Meeting

## Presentations (1st Meeting):

- Do Something (Carl Callahan)
- System Preservation in Louisiana (LADOTD)
- Bridge Preservation Association (Mike Stenko)

# Bridge Task Force Meeting

## Presentations (2nd Meeting):

- Bridge Management Update (Caltrans)
- Midwest Bridge Working Group (KTC)

# Bridge Task Force Meeting

## Planned Activities (cont'd):

- Continue Coordination with the AASHTO SCOBS subcommittees on Bridge Preservation and other stakeholders
- Possible Mid Year meeting at TRB in January 2009
- Request that AASHTO SCOBS adopt AASHTO BP Strategic Plan

# Bridge Task Force Meeting

## Planned Activities (cont'd):

- Form Regional Bridge Working where they don't exist, support ones that exist
- Champion National Bridge Preservation Workshop Action Register work items
- Champion Bridge Preservation and Maintenance Initiatives

# Bridge Task Force Meeting

## Planned Activities (cont'd):

- Support planning for 2010 National Bridge Preservation Workshop?

# 2008 SCOM-SCOE-SAM Joint Committee Meeting



# Traffic Services & Safety

*Gary McVoy, NYSDOT – Chair*

*Richard Clarke, UDOT – Vice Chair*

# 2008 SCOM-SCOE-SAM Joint Committee Meeting



# Snow & Ice Task Force

*Bill Hoffman, NVDOT – Chair*

*Jaci Vogel, KDOT – Vice Chair*

# THANK YOU



Jaci Vogel – Last Meeting

Argentina Winter Maintenance Scan

Jaci Vogel- Kansas DOT

Fred Schultz – Colorado DOT

Steve Kirkpatrick - CalTrans

# THANK YOU



## Regional Asset Management Conference

Lacy Love – NC DOT

Pat Morin – Washington DOT

Tim Rose – Utah DOT

# Task Force Meetings

Updated Task Force on National Winter Programs

SICOP

Pacific Northwest Snowfighters

Clear Roads

Aurora

TRB

Passed out Research Needs Statements from Ea.  
Group

National Winter Test Facility

# Task Force Meetings

Washington DOT's Salt Usage and Cost Survey

Discussed strategy changes among DOT's to address Salt Shortage and Price Increases (Mag or Calcium)

Discussed Indianapolis International Winter Symposium

Research Need Statements

- Fuel Efficiency
- 511 Road Descriptor Consistency Discussed Winter

Winter Maintenance Domestic Scan

# TRB / AASHTO

## 2009 Meeting Abstracts

1. MMC 09-020A: Analysis of Maintenance Decision Support System (MDSS) Benefits & Costs
1. MMC 09-048A: Integrating Maintenance Management Systems with Maintenance Decision Support Systems
2. MMC 09-019A: Aurora Cost / Benefit for Weather Information In Winter Maintenance
3. MMC 09-040A: Development of Standardized Test Procedures to Measure the Performance of Deicing Compounds
4. MMC 09-039A: Transcend Research Facility: Vision, Infrastructure, and Development Activities

# Resolutions

1. Winter Maintenance Technical Services 4-year Program
2. Support of National 511 Coalition & Consistent Road Descriptors & Conditions

# Research Problem Statement

- **RNS #23. Title:** Reducing Fuel Usage During Winter Operations (might apply to all maintenance operations)
- **Problem:** Most snowplow trucks get only 5 miles/gallon during normal maintenance operations and less when fully loaded during winter operations. Diesel fuel is now \$4.50+ per gallon and projected to go higher. What can be done to reduce fuel usage during winter operations? (for example—set up snow routes to make right hand turns instead of left turns, match truck to plow for aerodynamics and efficiency, reduce idle times, etc)
- **Objective:** To reduce fuel usage. PA DOT uses 11 to 12 million gallons of diesel fuel per year. A 1% savings would be significant.

# Action Agenda / SCOM Re-Organization

It was very clear that we need to reorganize SCOM to better position ourselves to sell the importance of what we do:

To Preserve and Operate What We Currently Own

# Famous Quotes

“The Inability to Gain Consensus within SCOM Impedes the success of Maintenance on a Nationwide Level”

“If we don’t come up with Consistent Performance Measures ourselves, someone else will do it for us”

# Thank You



# 2008 SCOM-SCOE-SAM Joint Committee Meeting



# Equipment Focus Group

*Erle Potter, VDOT – Chair*

*Steve McCarthy, UDOT – Vice Chair*

# Attendance

- 21 Total Participants--19 Monday
- 11 States Represented
- Excellent Private Sector Participation
- Good Representation from Task Forces

# Publications

- 2008 AASHTO Equipment Reference Book
- Prepared by Utah DOT
- On AASHTO SCOM Website

# Current Research

- NCHRP 13-02 Guidelines for Selection and Application of Warning Lights on Roadway Operations
  - Interim report submitted and presentation at Equipment session
  - Considered for AASHTO Guide
- NCHRP 13-03 Guidelines for Decision Making on the Use of Agency and Vendor Resources for Equipment Fleet Operations
  - Interim report submitted and rejected

# 2008 Proposed Research

- Best Practices in Fuel Conservation and Carbon Footprint Reduction for DOT operations
- Joint Proposal
  - Snow & Ice Task Force
  - Roadside & Environment Task Force
  - Equipment Focus Group

# Proposed TSP

- Technical Service Program to take advantage of increasing technologies in equipment management
- Systematically identify & evaluate EM technologies
- Voluntary contributions
- Managed by Equipment Focus Group (Interim)

# Work Plan

- Presentation for 2009 Meeting
  - Best Practices in Fuel Conservation and Carbon Footprint Reduction for DOT Operations
- Coordinate 16th TRB Equipment Management Workshop for 2009
- Improved Equipment Web Links
- Publish 2009 AASHTO Equipment Reference Book

# 2008 SCOM-SCOE-SAM Joint Committee Meeting



# Management Systems Focus Group

*Lacy Love, NCDOT- Chair*

*Paul Corti, VT AOT – Vice Chair*

# Attendance

- 18 First Session and 25 the Second Session

- First Session                      Second Session

AASHTO	1	0
Federal	4	4
State	11	13
Industry	2	7
TRB	0	1

# Management Systems Focus Group

- Research Ideas
- Past Activities
- MMS Guide – Web Site
- NHI Course #131107 MMS Systems
  - Is there interest in a web based course
- Research Ideas
- Future Effort
  - National Workshop on Highway Assets Inventory and Data Collection
  - MMS Web Based Training
  - Composite Index for Highway Systems Health
- H

# Management Systems Focus Group

- NCHRP 590
- New Chairperson
- Showed the Performance Measures Scorecards from North Carolina
- Saw Steve Gaj's presentation  
    “What is Asset Management”
- Open Discussion on how to start a Maintenance Management System
- Discussed FHWA sponsorship of State DOT peer exchanges
- VTDOT and NCDOT volunteered to present at a future Asset Management Webinar

# RESEARCH PAPERS SELECTIONS

1. **MMC09-022A:** Using Mobile Technology to Capture Field Maintenance Data for Input in the Maintenance Management System in North Carolina
2. **MMC09-023A:** Maximizing Resource use to Meet the Maintenance Management Challenge – As Demonstrated by Traffic Signal Maintenance Management in the City of Norfolk Virginia
3. **MMC09-026A:** State department of Transportation Vegetation Inventory Protocol Project
4. **MMC09-029A:** Pavement Management System – From Database to Knowledge Base

# Workforce Development Focus Group

*Jim Feda, SCDOT – Chair*

*Mike Bowman, INDOT – Vice Chair*

# TCCC Update

- New website to launch in July 08
- New Transportation Training Data Base to launch later this year
- New e-learning courses offered free via a partnership with NHI
- Maintenance Academy moving forward with expected release in mid 2009

# Topics of Discussion

- Solicited for a new co-chair
- Direction for focus group
- Training needs
- Maintenance Academy
- Possible presentations for 2009 meeting

# Resolutions

- Passed one resolution requesting support from the sub-committee for the development of new curriculum to be adopted by colleges and universities for inclusion into engineering programs that will provide students with instruction on preserving, maintaining, and operating a highway system under traffic

# Work Plan for 08-09

- Continued participation with TCCC
- Continue to develop e-learning courses applicable to the maintenance community
- Continued work on development of certification program for preservation contractors
- Continue work on Maintenance Academy
- Develop presentations for 2009 meeting

# Contract Maintenance Focus Group

*Jim Carney, MoDOT – Chair*

*Greg Duncan, TNDOT – Vice Chair*

# NCHRP Projects Status

- NCHRP 14-18 – contract awarded to Cambridge Systematics
- NCHRP 20-24 – working with Performance Measures Focus Group to develop this initiative
- NCHRP 37-09 – still in progress but expected to be finalized by Labor Day 2008

# RESEARCH PAPERS SELECTIONS

1. MMC09-005A: NCDOT's Performance Based Contracting Experience in Charlotte
2. MMC09-015A: Results & Lesson's Learned from DDOT's Tunnel Asset Mgmt. Contract
3. MMC09-002A: Performance Based Contracting, Yes or No, an In-Depth Analysis

# Research Papers (cont)

4. MMC09-013A: Solving Maintenance Issues in Design and Construction
5. MMC09-009A: Outsourcing-What are you prepared to do about it

# Other Items Discussed

- AMOTIA – updates
- Tennessee PBC specs drafted for study
- Tennessee Striping PBC
- Maryland piloted a PBC along Maryland 100
- Virginia's preservation activities
- Florida's Rest Areas, Courtesy Patrol and Incident Response

# Performance Measures Focus Group

*Jennifer Brandenburg, NCDOT – Chair*

*Steve Lund, MnDOT – Vice Chair*

# 2<sup>nd</sup> National Maintenance Quality Assurance Peer Exchange



- 1 ½ day MQA Peer exchange
- Raleigh, North Carolina
- September 23 and 24, 2008
  - State DOTs
  - Maintenance Contractors
  - National Organizations
  - Consultants



# NCHRP Research Underway

- **20-74A “Development of National Level of Service Criteria for the Interstate Highway System”** Contract executed, project underway.
- **20-07 Task 206 “A Model Guide for Condition Assessment Systems”** In final draft.
- **20-07 Task 260 “Development of Guidelines for Conducting Effective Customer Surveys Related to Highway Maintenance Operations”** Panel seated, contractor selected.

# Accomplishments This Meeting

## Showcased 3 Maintenance Quality Assurance (MQA) Programs

- Maryland – MCARS

*Maryland Condition Assessment Program*



- Kansas – MQA

*Maintenance Quality Assurance*



- Texas – TxMAP

*Texas Maintenance Assessment Program*



# Common Performance Measures (CPM's)

- Initiated thinking on establishing CPM's
- Revisited Highway Subcommittee on Maintenance Resolution 01-07 supporting the development of CPM's
- Proposed the development of a draft list of one or two CPM's in each major maintenance category along with recommended units for Subcommittee's review

# Research Proposal

Problem Title: “*Relationship Between Maintenance Cost and Level of Service(LOS)*”

- Focus Group provided support for this study
- Study originally proposed by TRB Committee AHD10
- Project may benefit from the results of the ongoing NCHRP 14-18 project entitled “Determining Highway Maintenance Costs”

# Research Papers Selections

1. MMC09-042A: Use of Monte Carlo Simulation to Evaluate the KS DOT's MQA Program
2. MMC09-032A: Development of a Comprehensive Framework for the Efficiency Measurement of Road Maintenance Strategies using Data Envelopment Analysis

# Research Papers Selections

3. MMC09-030A: Maintenance Quality Assurance in North America; State of the Practice
4. MMC09-015A: Results and Lessons Learned from DDOT's Tunnel Asset Management Contract
5. MMC09-16A: Designing PPP Projects; Lessons from Finland

# 2<sup>nd</sup> National Maintenance Quality Assurance Peer Exchange

Raleigh, North Carolina  
September 23 and 24, 2008



**Ya'll come!**

Jennifer Brandenburg, PE  
jbrandenburg@ncdot.gov  
(919) 733-3725

# NCHRP Updates

*Amir Hanna, NCHRP – Sr. Program  
Officer*

# 2008 SCOM-SCOE-SAM Joint Committee Meeting



**'Til we meet again!  
Annapolis, Maryland  
2009**