

# The Maintenance Manager

## *Message from the Chair:*



Hello Maintenance Community:

Hello maintenance community, I hope that this issue of the Maintenance Manager News Letter finds you all well and rested up after our great meeting in the beautiful state of Kentucky. I hope that you all had a chance to thank Nancy and all of the great folks at the Kentucky Transportation Cabinet for making the meeting a great success. The energy and passion of all of the participants was amazing, the citizens of your respective states are very lucky to have you all looking after their roads.

The State of Utah is currently looking at all of state government and trying to find ways to be more efficient, as I am sure is the case with a lot of your states as well. In the next several weeks an independent commission, working on behalf of our Governor, will be visiting with us and challenging us find ways to deliver our services at less cost to the tax payers. In order to prepare I have been doing some reading about past efforts the state has undertaken to achieve the same goal. Back in 1965 the Governor and the Legislature created the "Little Hoover Commission". The made several finding and recommendations in the area of organizational structure, but the finding that I found very interesting was the following:

***"The utilization of Labor, Materials, and Equipment in Highway Maintenance is Low***

***The costs and complexities of highway maintenance are steadily rising and will continue to increase. At the same time, insufficient effort has been directed towards the development of the management tools required to effectively plan, schedule, supervise, and control maintenance operations and costs. As a result, the department is experiencing a very low rate of labor, materials, and equipment utilization. "***

I won't go on, but I was impressed with the foresight of the Commission back in the 60's. Remember we were building the interstate system, so maintenance wasn't probably the most important challenge facing DOT's at the time. Fast forward to today, and maintenance is one of the most important challenges facing all DOT's. And, we are still working on developing tools to become more efficient in our operations. That's what the AASHTO subcommittee on Maintenance, along with our FHWA partners, is all about.

Thanks to each and every one of you for the energy you bring to make us all better.

Sincerely, Carlos

*(Carlos Braceras, UDOT Deputy Director, is the current Chairman of the Subcommittee on Maintenance)*

## **Subcommittee Activities** **Equipment Technical Working Group**

### **Equipment Management Technical Services Program (EMTSP)**



When the Equipment TSP was originally approved by the AASHTO Board of

Directors, it was named "Advance Equipment Technology Operations" (AETO). This terminology resulted in some confusion for states wishing to contribute to the program. The Equipment TWG developed a policy resolution to change name of the TSP. The resolution was passed by the Board of Directors and the name of the program is now officially the Equipment Management Technical Services Program (EMTSP) and is listed on the AASHTO invoices in this manner. This name change hopefully will eliminate the confusion with the name and result in increased voluntary contributions.

The Northeast and Midwest EMTSP partnerships are holding their 2011 Northeast/Midwest Joint Equipment Management Meeting on August 15-18, 2011 at the

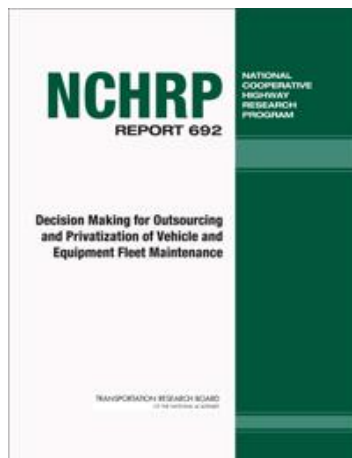
Great Wolf Lodge, 10401 Cabela Drive, Kansas City, Kansas. A brochure containing the agenda, registration information, and related information can be found at the following link:

<http://www.emtsp.org/files/2011/03/Brochure-2011-MW-NE.pdf>

The Western EMTSP partnership is holding its 2011 Western States Highway Equipment Managers Association annual conference on August 29-September 1 at the Marriott Seattle Waterfront, Seattle Washington. The agenda for this meeting is located at: <http://wshema.com/>

The EMTSP Oversight Panel is collaborating with TRB Committee AHD60, Maintenance Equipment, to schedule a national joint TRB/EMTSP Equipment Management Workshop in Mobile Alabama on June 24-28, 2012. Additional details will be forthcoming as further developments occur.

### **NCHRP Project 13-03A - Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance**



NCHRP Project 13-03A, in which the Equipment Technical Working Group participated and supported since developing the problem statement nearly five years ago, has now been completed. As a result of the research, NCHRP Report 692, *Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance* has been published by TRB. Copies of this report may be purchased or downloaded at the following link:

[http://gulliver.trb.org/Main/Blurbs/Decision\\_Making\\_for\\_Outsourcing\\_and\\_Privatization\\_165623.aspx](http://gulliver.trb.org/Main/Blurbs/Decision_Making_for_Outsourcing_and_Privatization_165623.aspx)

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This report presents a practical, logical, and transparent framework for conducting systematic analysis and making decisions on outsourcing and privatization of vehicle and equipment fleet maintenance. The framework defines a decision process model that can be applied to a wide range of outsourcing decision alternatives. The process is presented as a step-by-step logic process that focuses on the unique features of state department of transportation (DOT) fleet maintenance. Additionally, forms and templates are included in the report for use in conducting and documenting the outsourcing analysis and organizing the results. This information will be particularly useful to state highway agencies as they consider outsourcing and privatization options. These decision tools provide an opportunity to consider the impacts on established and acceptable levels of service and identify the practices that will result in the most comprehensive cost savings.

In the absence of any widely-accepted process for evaluating the different forms of outsourcing vehicle and equipment fleet maintenance, many states and municipalities could benefit from the research and experience that are represented within the decision process model.

The findings of the research were presented to Equipment TWG at the annual SCOM meeting in July. With the consensus of the TWG, a request was submitted to the SCOM leadership for a ballot of the SCOM membership for their votes for the contents of NCHRP Report 692 to be formally accepted for adoption by AASHTO and published as an AASHTO guide.

**NCHRP Project 20-7 – Task 309 – Challenges and Opportunities: A Strategic Plan for Equipment Management Research**

The problem statement for this project was developed by the EMTSP Oversight Panel in conjunction with its

strategic plan to help accelerate the delivery of many action items included the EMTSP Strategic Plan.

NCHRP staff established a project advisory panel to provide overall counsel and technical guidance for this project and retained a consultant with familiarity with equipment management issues to facilitate the workshop and prepare a report of the workshop deliberations and findings. The project advisory panel consisted of the following equipment managers and consultants:

- John Brewington, Brewington & Company
- Tim Cunningham, Kansas DOT
- John Dolce, Consultant
- Bruce Erickson, Oregon DOT
- Dennis Halachoff, Arizona DOT
- Drew Harbinson, North Carolina DOT
- Erle Potter, Virginia DOT
- Sonja Scheurer, Michigan DOT
- Jim Smith, Pennsylvania DOT
- Janie Vrtiska, Nebraska DOT
- John Wiegmann, Booz Allen Hamilton
- Rick Bradbury, FHWA
- Frank Lisle, TRB Engineer of Maintenance
- Amir Hanna, NCHRP Senior Program Manager
- Consultant Facilitator – Paul Lauria, Mercury Associates
- Consultant Facilitator – Len Bammer, Mercury Associates

The project panel convened for a 1-1/2 day workshop on June 28-29, 2011, in the National Academies' Beckman Center in Irvine, California. At the conclusion of the workshop, a list of nine major potential equipment management research areas was developed and prioritized. The consultant facilitator is in the process of preparing the report of the workshop deliberations and findings. After having received the consultant's report, the Equipment TWG will begin developing research problem statements in priority order of the findings.

## Roadway/Roadsides Technical Working Group

### Roadway/Roadside TWG Recruits Members!

The Roadway/Roadsides Technical Working Group (RRTWG) is asking for your state's input. The AASHTO Subcommittee on Maintenance (SCOM) was reorganized in 2010 to improve its ability to respond to current issues and achieve the goals of the Subcommittee while supporting the mission of the Standing Committee on Highways. Members of the newly formed RRTWG would like to invite you to designate yourself or a staff member to join us as we prepare to meet many of the challenges facing the highway maintenance community. The RRTWG will address issues dealing with Traffic Services, Vegetation, Safety Appurtenances, Signs and Pavement Marking, Rest Areas, Drainage, and Lighting. Actions may include writing manuals and guides, developing specifications, writing research proposals, and identifying emerging technologies. The RRTWG will cover many of the areas that were previously the responsibility of the Roadsides and Environment Task Force, and the Traffic Services Task Force.

In order to build a network of knowledgeable members, please submit contact information for up to

two people per state or province to be affiliates of the Roadway/Roadsides Technical Working Group. This affiliation is intended for webinar, phone conference, and email type information exchanges. Travel authority is not a requirement to be an affiliate member of the Roadway/Roadsides Technical Working Group.

Name:

Title:

Organization:

Email address:

Phone number:

Fax number:

Please send your designations to  
Greg.Duncan@tn.gov.

Submitted by: Mike Mattison (Nebraska), Chair  
Richard Clark (Utah), Vice Chair  
Greg Duncan (Tennessee), Vice Chair

## Bridge Technical Working Group

### Bridge Preservation

The Bridge Technical Working Group met over the course of three breakouts during the annual SCOM meeting in Louisville this past July. Members of the BTWG decided on a slight shift in mission of for the group. Although bridges will still be the primary focus, additional highway structures, particularly culverts and overhead sign structures, will also be included.

One of the four presentations provided was on the structural repair of corrugated metal pipe. Robin Wolf APM/Permaform discussed in-situ repair of

corrugated metal pipes by spin-casting concrete onto corrugated metal pipe. Other presentations included a review of the Kentucky Transportation Cabinet's Bridge Preservation Program (David Steele, KYTC); Experimental Bridge Projects in the Louisville Area (Ted Hopwood, Univ. of Ky); Bridge Investment Strategies (Nat Coley, FHWA); and Contracting Emergency Response (Nelson Lucius, Neel-Schaffer). All the proceedings of the BTWG were webcasted. Members of the Group did participate via

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the internet. The presentations are posted on the AASHTO SCOM webpage.

Wade Casey, Kelly Rehm, and Ed Welch provided updates on events at FHWA, AASHTO, and the TSP2, respectively. Vice chair Janice Williams discussed on going activities of the special committee on Truck Size and Weight.

One resolution was presented to the Sub-Committee. The BTWG is seeking adoption of the definition of bridge preservation and supporting commentary. Three research needs statements (Maintaining Steel Coatings with Minimal Surface Preparation, The Feasibility of Polymer Modified Pavement

Preservation Materials as Waterproofing Deck Treatments for Bridge Decks, and a Developing a Consistent code and Training System for Emergency Inspections. The latter was a joint effort with the Roadway/Roadside and the Highway Safety and Reliability TWGs.

A work plan for 2011-2012 was crafted and is also available through the AASG+HTO SCOM web page.

Members considered Louisville a fine place and congratulated themselves on being part of a productive meeting. . Next year we'll get to see the skyline of Seattle.

## **AASHTO TSP-2 Upcoming Activities**

Nothing submitted.

## **MQA – Maintenance Quality Assurance**

The University of Wisconsin hosts the national Maintenance Quality Assurance Resource Library on its servers at <http://www.mrutc.org/outreach/MQA/library/>. The library, an effort of the Midwest Regional University Transportation Center and the Transportation Asset Management pooled fund research program, contains hundreds of documents from 36 states and provinces related to MQA best practices, training materials, reports, and related information. The MQA Library also includes final proceedings documents and presentations from both the 2004 and 2008 Peer Exchanges on Maintenance Quality Assurance. The resources pages also include links to subscribe to the MQA Listserv, a community of practice based listserv for MQA Professionals from across North America. The Library will be updated as part of NCHRP 14-25: Guide for Selecting Level-of-Service Targets for Maintaining and Operating Highway Assets, recently awarded to a team from the University of Wisconsin, the National Center for Pavement Preservation, and Venner Consulting. For more MQA resources, visit [www.mrutc.org/outreach/MQA](http://www.mrutc.org/outreach/MQA).

## Pavement Technical Working Group

### Statement of Direction

The purpose of the Pavement Technical Working Group is to promote the preservation of pavements.

The PTWG will attempt to accomplish this purpose by the following activities:

1. Coordinate and support the development of guidelines, specifications, terminology and best management practices relative to pavement preservation and maintenance;
2. Share information on pavement preservation and maintenance;
3. Support and participate in development of pavement preservation projects and the use of innovative pavement materials;
4. Develop partnerships and coordinate task force activities with other pavement groups (such as FHWA, TRB AHD18 and AHD20 Committees, the regional pavement preservation partnerships, etc.);
5. Identify research needs, support development of problem statements and identify potential funding sources;
6. Sponsor technical presentations to communicate new developments in pavement preservation and maintenance;
7. Support training courses in pavement preservation; and
8. Support the development of new technology that leads to the extension of pavement life in a cost-effective manner, and identify and promote the implementation and usage of products and processes which achieve this goal.

### 2011 / 2012 Work Plan Goals

1. Sustain high level of maintenance interest and involvement in the area of System Preservation.
2. Promote the Transportation System Preservation Technical Services Program. (TSP2)
3. Support the expansion of Regional Pavement Preservation Partnerships.
4. Assist in the implementation of the Pavement Preservation Roadmap.
5. Promote the utilization of the National Center for Pavement Preservation for research management.
6. Review TRB/NCHRP Completed Research for possible publication as AASHTO Manuals: 9-41 Performance and Maintenance of Permeable Friction Courses; 20-74A Development of National Level of Service Criteria for the System; 20-81 Challenges and Successes in Attracting and Retaining a Skilled Transportation Workforce; SHRP-2 R-26
7. Enhance the Internal Communications of the PTWG by: expanding the membership list; improving the e-mail address list; and conducting quarterly telephone conference calls and/or webinars.
8. Support the development and promotion of certification programs for pavement preservation contractors and/or personnel.
9. Support the development and promotion of common performance measures for pavement preservation activities.
10. Work to confirm and enhance the linkage of pavement preservation activities to overall crash reductions in comparison to traditional rehabilitation and reconstruction activities.
11. Support the development and promotion of life cycle assessment methodologies that demonstrate the environmental-friendliness and sustainability benefits of pavement preservation techniques and strategies.
12. Work to develop a guideline that will uniformly define the Remaining Service Life (RSL) of zero for use by our member agencies.

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## From the Editor's Desk:

I'm excited to get to step into the FHWA Staff position for SCOM and look forward to working with everyone. Helping put together this newsletter got me to thinking about all the talk of a performance based highway program and what that will mean for each of us. Recently, I have heard that some states were looking for examples of maintenance activities using federal funds.

In North Carolina we've developed a programmatic agreement using federal aid Interstate Maintenance funds for preservation activities that includes a categorical exclusion (CE) for the activities listed in the agreement. Below is an excerpt with more details written by my state partner Mrs. Emily McGraw...

"On December 1, 2010, NCDOT and the local FHWA office entered into a formal agreement where NCDOT began using federal dollars to preserve its' interstate system. This new program, Interstate Maintenance Preservation Program (IMPP), gives NCDOT an opportunity to do preventive maintenance on the interstate system and allows the Department to develop long-term plans and strategies for managing the system. The IMPP is a planned strategy of cost effective treatments to interstates; including bridges, pavements and roadside features that prevent/retard future deterioration and extends service life without increasing structural or traffic capacity. \$10 Million was set aside for the first year of the program. Allocations were made to the field offices based on lane miles and square feet of bridge deck area. The Department developed systematic selection criteria to aid the field offices with project selection. Information including the agreement, supporting documentation and training materials is located at the following website: <http://www.ncdot.gov/programs/srmu/default.html#123>. For more information please contact William Beatty ([william.beatty@fhwa.dot.gov](mailto:william.beatty@fhwa.dot.gov)) or Emily McGraw ([emcgraw@ncdot.gov](mailto:emcgraw@ncdot.gov))."

The NCDOT uses performance measures that include levels of service and condition indicators. They also use performance targets and an extensive condition assessment program. This provides valuable information for a complete asset management approach of the highway network in North Carolina.

If your state is doing something unique and you would like to share it with the SCOM please e-mail me your proposed article. I'd like include some tips and new practices in each upcoming newsletter.

Thank you,  
William Beatty

## Roster's Update

Please visit the Subcommittee of Maintenance website, <http://maintenance.transportation.org/Pages/default.aspx?siteid=7> click on Members, then State DOT Members and review your posted information. If you need to change/update any personal info, please click on the question, "Need to correct something?" located underneath "State DOT Members", fill out the form and follow instructions.