

Message from the Chair:



I hope that everyone is starting to thaw out from all of the severe weather we had this winter. Mississippi does not normally experience the winter weather that the northern states do, but when we do encounter it, as we did this year, it is a big challenge. In these severe weather situations, it is vital that maintenance professionals are proactive in alerting the public to hazardous conditions, informing them what the State DOTs are doing to clear the roads, and emphasizing safety to both drivers and maintenance workers. Now that the snow, ice, and rain are leaving us, we are now back to battling potholes and other pavement distresses caused by the severe weather. Maintenance is a never-ending process. Thank you for your hard work and consistent efforts in maintaining our nation's highways.

It is hard to believe that it is getting close to our next AASHTO Subcommittee on Maintenance meeting to be held in Des Moines, Iowa, in July. The Planning Committee has done a tremendous job putting together an excellent agenda and finalizing the logistics for the meeting. As I

discussed at last year's meeting in West Virginia and in the last newsletter, I am interested in hearing any suggestions you believe could make the SCOM meeting better, and in turn, improve the Subcommittee. One of the items that we have added to the agenda this year is an opportunity for the regions to get together and discuss relevant issues. This was a suggestion I received last year, and I felt like it would be a beneficial addition to our meeting agenda. I appreciate the four volunteers who have stepped up to lead these discussions.

Lastly, as you all know, AASHTO has developed a new Strategic Plan, and in an effort to get ahead of the curve, SCOM has been approved funding through 2017 to update the Subcommittee Strategic Plan. A Strategic Plan workshop will be held in July right before the SCOM meeting, which will allow us to report back to you what our plan is going forward. In addition, we will review the structure of the Subcommittee at this workshop to see if there are areas in need of changes or updates.

Thanks again for championing maintenance in your state and for providing safe travel to the citizens of this great country.

All the best - Mark

In This Issue

Equipment Technical Working Group	1
Highway Safety and Reliability TWG	3
Bridge Technical Working Group	4
Pavement Technical Working Group	5
Roadway/Roadside Technical Working Group	5
Turner-Fairbanks Highway Research Center Update	5
Transportation Research Board Update	6

Salt Availability Summary	7
MoDOT Prepares for Winter with Statewide Drill	7
Top 10 Concerns for World Class Winter Maintenance Programs	7
From the Editor's Desk	8
Summer Meeting Information	8
Useful Links and Information	9

Equipment Technical Working Group

Equipment Management Technical Services Program (EMTSP)

The EMTSP Oversight Panel continues their management of the program. Recent accomplishments include the following:

- Year-to-date FY 2015 State DOT annual contributions to EMTSP are aligned with



contributions for this time of year of previous fiscal years.

- Action items in the EMTSP Strategic Plan have been updated and completed.

- Modified the EMTSP website to provide similar information as the former AASHTO Equipment Reference book to eliminate the need for continuing that publication. Additional enhancements include:
 - Posting of the Annual TRB Meeting presentations sponsored by the cooperative TRB Committee on Maintenance Equipment (AHD60).
 - Promotion and instruction encouraging the EMTSP community to utilize the Survey Monkey® tools found on the website.
 - Development of regional and global email contact distribution lists.
- Continued coordination of the scheduled regional partnership meetings to occur on odd numbered calendar years. The 2015 Regional Partnership Meeting Calendar is as follow:
 - The joint Northeast Equipment Management Partnership and the Midwest Equipment Management Partnership will meet jointly in St. Louis, Missouri on June 15-18, 2015.
 - Southeastern States Equipment Managers Conference will meet in Myrtle Beach, South Carolina on June 21-25, 2015.
 - Western States Highway Equipment Managers Association will meet in Anchorage, Alaska on August 23-27, 2015.
- Working in partnership with TRB Committee AHD60, Maintenance Equipment, and the Ohio DOT, the development of a conference planning steering committee and conference call schedule has been established for the planning and preparation of the 2016 AASHTO-EMTSP/TRB Joint National Equipment Fleet Management Conference and Equipment Trade Show. The final dates and location of the conference are under evaluation by the Ohio Department of Transportation and the conference steering committee.
- Continued work implementing findings from the final report of Research Project 20-07/Task 309 to identify and prioritize additional research projects.
- Continued working with the EMTSP National Performance Measurement Working Group to develop and post each state's available performance measures on the EMTSP website. Four (4) common state DOT fleet performance measures (Utilization, Preventative Maintenance, Retention, and Availability) are now being reported and may be reviewed at www.emtsp.org.
- Continued development of a training and certification program for state DOT equipment managers in collaboration with North Carolina DOT, the National Center for Pavement Preservation and Ferris State University continues to move forward. During, the 2014 joint AASHTO/TRB National Equipment Fleet

Management Conference and Trade Show, each state DOT completed a survey. in which they prioritized critical training modules. A listing of the ten (10) most critical training modules was identified.

- The identified and prioritized modules were aligned with the AASHTO Transportation Curriculum Coordination Council (TC3) Training Matrix to assure applicability and relevance.
- Two training modules were submitted to TC3 for web-based development consideration and accepted for development in 2015. The modules are (1) *Preventive Maintenance Concepts for Equipment Fleet Management* and (2) *Bench Marking and Best Practices within Equipment Fleet Management*
- EMTSP website continues to provide a clearinghouse of information for professional development self-study on subject-related fleet management topics including: industry and regulatory communications, technical equipment specifications, white papers, videos, academic presentations and webinars.

The revised EMTSP strategic plan can be found on the "About EMTSP" page of the EMTSP website at the following link: <http://www.emtsp.org/about-emtsp/>

If your state has not yet remitted the voluntary contribution for EMTSP, you are encouraged you to do so in order for this valuable program to continue and expand its accomplishments, which serve the needs of highway agency equipment fleet professionals

All state DOT equipment managers (and others interested in receiving periodic e-mail related to the EMTSP) are encouraged to subscribe to the EMTSP listserv by clicking on this link: [EMTSP General Listserv](#)

Equipment Technical Working Group (TWG)

Research

- The Equipment TWG's research problem statement titled *Guidelines for the Development of Highway Operations Equipment Replacement Lifecycle Criteria* and assigned NCHRP project number 13-04, FY2014 is on-going. The project panel has been staffed; RFP has been written, solicited, evaluated and awarded to a research agency. Estimated project start date is scheduled for early 2015.
- The Equipment TWG's research problem statement titled *Guidelines for the Development of Highway Operations Equipment Utilization Measurement and Management* and assigned NCHRP Project Number 13-05, FY2015 is on-going. The project panel has been staffed, RFP written, solicited, evaluated and awarded to a research agency. Estimated project start date is scheduled for early 2015.
- The Equipment TWG's most recent research problem statement titled *Guidelines for the Development of State Departments of*

Transportation (DOTs) Highway Operations Equipment Multi-year Replacement Plans was presented to the Subcommittee on Maintenance at the summer meeting and was voted #2 by the subcommittee. Next process action going forward is NCHRP review and SCOR recommendation.

- NCHRP Synthesis 452, State Department of Transportation *Fleet Replacement Management Practices*, has been completed and published in March 2014. The complete report can be found at

can be found on the “About EMTSP” page of the EMTSP website at the following link:

<http://www.emtsp.org/about-emtsp/>.

Collaboration with TRB

Various members of the Equipment TWG have been involved with preparing, reviewing and arranging for papers on relevant equipment management topics to be presented at the Annual 95th TRB Meeting to be held in Washington, D.C. on January 10-14, 2016.

Highway Safety and Reliability Technical Working Group

July SCOM/Highway Safety and Reliability (HS&R) Technical Working Group (TWG)

Planning is in full swing for the July SCOM and the HS&R TWG breakout sessions. As you may know, this year’s SCOM meeting is a joint conference with TRB. One thing that means is we have solicited and received many interesting research presentations related to your interest areas. Specifically to our TWG’s topic areas, there were many submitted abstracts – too many to hear all of them. The HS&R TWG leadership team reviewed each of the abstracts and identified 16 of the top papers. Eight of the papers will be presented to a concurrent (2 parallel sessions) SCOM audience, and eight will be presented during TWG breakout times. The research topics break down pretty evenly between winter topics; and Safety and Reliability topics.

One responsibility of the SCOM/TWGs is to identify and advance critical research needs. The SCOM has been very successful in advancing research needs through the NCHRP process. Critical to that success is that the research needs are well vetted. With the limited time that the SCOM conference provides, it can be somewhat difficult to fully develop research needs statements. So please, if you have a suggested research need, please share that ahead of time by contacting Steve Lund at 651-366-3566 or steven.lund@state.mn.us.

Some other HS&R TWG breakout topics will be information on traffic sign retroreflectivity requirements, and updates from the national winter programs. I hope you are able to attend and look forward to seeing you. If you have comments or suggestions on HS&R TWG activities please contact Steve Lund.

Collaborating with FHWA’s Work Zone Management Program Smarter Work Zones

In response to aging infrastructure, increasing construction, and growing congestion on our nation’s roadways FHWA’s Work Zone Management Program has developed the two-year Smarter Work Zones (SWZ) initiative under FHWA’s broader Every Day Counts (EDC) effort. SWZ promotes safe and operationally efficient work zones through Project Coordination and Technology Applications. Since its inception, 21 states have signed up to implement Project

Coordination strategies while 31 states have indicated interest in conducting Technology Applications. FHWA will be working closely with these states to help them implement their selected solutions. The agency’s support includes (but is not limited to): the development and distribution of outreach materials (case studies, fact sheets, toolkit, marketing materials), development and maintenance of an SWZ database repository, providing technical assistance to interested states (webinars and in-person workshops, peer-to-peer events, site visits and regional peer exchanges), and providing information at conferences across the country. The level of implementation will vary from State to State, depending on where they are today and how much they want to accomplish over the next 2 years. For more information:

<http://www.fhwa.dot.gov/everydaycounts/edc-3/zones.cfm>

FHWA’s Peer-to-Peer Program

In response to practitioners seeking information on strategies to mitigate work zone impacts, FHWA established the Work Zone Safety and Mobility Peer-to-Peer Program (WZ P2P). The program facilitates the exchange of information among practitioners, and helps stimulate improvements toward making work zones work better. FHWA has identified a number of subject matter experts across various work zone topics who are ready and willing to support interested transportation agencies. P2P activities include both virtual and in-person site visits supported by FHWA’s Work Zone Management Program. Other activities include regional peer exchange workshops conducted by FHWA. For more information:

<http://www.ops.fhwa.dot.gov/wz/p2p/index.htm>

Help us get the word out! We (at FHWA) look forward to working with the HS&R TWG to help us get the word out. We’re looking for champions to provide peer support for both the SWZ initiative and general work zone safety and mobility issues. We’d also like to help provide support to interested states. Please let us know if you’re interested in working with a peer or attending a scheduled workshop on the SWZ initiative or another work zone safety and mobility topic of your choosing!

For additional information, requests for support, or interest in serving as a peer on either of these efforts please contact:

Paul Pisano
Team Leader, Road Weather & Work Zone Management
Team
Paul.Pisano@dot.gov, or
Jawad Paracha
Program Manager, Work Zone Management Program
jawad.paracha@dot.gov

2015 National Winter Maintenance Peer Exchange

Planning continues for the 2015 National Winter Maintenance Peer Exchange set for September 23-25, 2015 in Bloomington, Minnesota. The agenda has been established and program set. Day 1 will focus on winter maintenance research accomplished and underway by Aurora, Clear Roads, SICOP, the Transportation Research Board, FHWA, and others, along with panel discussions addressing a variety of winter maintenance and traffic operations topics. Day 1 concludes with an “Evening With Industry” reception where participants will have an opportunity to network with their peers and representatives from the winter maintenance industry.

Day 2 is devoted to State best practice presentations where various states will present their best practices in winter maintenance. The Peer Exchange concludes on the third day with workshop breakout sessions to identify gaps in research and implementation for the various consortia to concentrate their efforts during the next two years. A detailed draft agenda is attached showing each day’s activities has been attached.

A nominal registration fee of \$60/day will be necessary to help defray the costs for meals which will be provided during the Peer Exchange. This registration fee will be waived for the Sponsoring entities (Aurora, Clear Roads, and SICOP) and their invited guests. More information regarding registration will be published soon.

Please contact Rick Nelson, SICOP Coordinator, 775.230.6928, Rnelson@ashto.org if you have any questions regarding the 2015 National Winter Maintenance Peer Exchange.

Bridge Technical Working Group

The Bridge Technical Working Group is planning for the break-out sessions and the paper presentations for the 2015 SCOM/TRB Maintenance Conference in Iowa.

The bridge related abstracts for the 2015 AASHTO/TRB Maintenance Conference were reviewed by the Bridge Technical Working Group.

The Bridge Technical Working Group serves as the liaison and facilitator between the TSP.2 regional bridge preservation partnerships and AASHTO SCOM Leadership.

The 2015 meeting of the AASHTO TSP2 Southeast Bridge Preservation Partnership was held in Montgomery, Alabama from April 13 to April 15.

The schedule for the remaining 2015 Bridge Preservation Partnership Meetings follows:

- Western Bridge Preservation Partnership - Portland, OR – May 18-21, 2015
- North East Bridge Preservation Partnership - Manchester, NH – September 9-11, 2015
- Mid-West Bridge Preservation Partnership - Kansas City – September 30 – October 2, 2015

The Bridge Technical Working Group has supported NCHRP bridge related research projects, and members of the group attended the 2015 TRB meeting in Washington, D.C. Members of the group are also involved in the activities of the following TRB committees:

- Bridge Preservation Committee (AHD37)
- Structures Maintenance Committee (AHD30)
- Bridge Management Committee (AHD35)

The Bridge Technical Working Group is supporting the efforts of the SCOM leadership to update the SCOM Strategic Plan (NCHRP Project 20-07/Task 379) and the update of the AASHTO Maintenance Manual for Roadways and Bridges (NCHRP Project 20-07/Task 380).

The Bridge Technical Working Group provided an endorsement for a research proposal titled “Modeling the Performance of Vehicular Bridge Expansion Joints Under AASHTO LRFD Loads and Actual Traffic”. This proposal has been submitted to AASHTO SCOBs for consideration and ranking.

The Bridge Technical Working Group provided an endorsement for a proposed Domestic Scan Program titled “Bridge Recoating Best Practices”. The proposal was selected by the NCHRP panel. The scan team is currently being formed.

Members of the Bridge Technical Group have provided support to FHWA’s Long Term Bridge Performance Program.

A National Bridge Preservation Partnership (NBPP) Coatings Group has been established. Jeff Pouliotte from Florida is the Chair.

A National Bridge Deck Preservation Working Group has also been established. Mike Johnson from California is the Chair.

The Bridge Technical Working Group provided a coordinated response concerning the FHWA NPRM for

bridge and pavement condition. The official AASHTO response to the National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program was submitted to FHWA on April 23, 2015.

Members of the Bridge Technical Working Group are involved in the work of the FHWA Bridge Preservation Expert Task Group.

The following bridge related training courses are under development by the FHWA NHI:

- Bridge Preservation Web-based Training Course Series (NHI 130106) - Development Completed - Course will be offered by NHI very soon.
- Bridge Maintenance Training Course Series (NHI 130107 and 130108) - Overall project approx. 50% complete - Target Completion Date: 2016.
- Bridge Management Web-based Training Course Series (NHI 130109) - Development Completed - Pilot Completed - Anticipate offering by NHI later this year.

The leadership team of the Bridge Technical Working Group conducted teleconferences and email exchanges with the group members.

Pavements Technical Working Group

SCOM 2015 will soon be here and the PTWG has a full agenda for the breakout sessions. There will be updates provided from our AASHTO partners, National Center for Pavement Preservation, Transportation System Preservation Technical Services Program, For Pavement Preservation (FP2), National Cooperative Highway Research Program, Transportation Research Board and Federal Highway Administration.

Technical presentations will be provided in the areas of, Precast Concrete for State-of-the-Art Pavement Infrastructure Maintenance, Pavement Preservation Roadmap Update, Guidelines for the Preservation of High-

Traffic-Volume Roadways (R26), Performance Measures for MAP-21, National Center for Asphalt Technology/MnRoad Partnership.

The 2015 Work Plan activities, needed research and resolutions will be discussed during the PTWG Annual Business Meeting.

Hope to see you in Des Moines
<http://www.iowadot.gov/2015scom/>

PTWG Leadership

Roadway/Roadsides Technical Working Group

R/R TWG Leadership Change

Beth Wright with MODOT stepped down as a Co-Chair at the end of December 2014. She served our group well and we wish her the very best with her future endeavors. Erany Robinson-Perry with GADOT joined our TWG as Co-Chair in January 2015.

Late 2014 Key Accomplishments

December 2014 Webinar

- Effective Removal of Pavement Markings (NCHRP Report 759), Adam Pike with Texas A&M Transportation Institute
- FHWA Report on Culvert & Storm Drain Management Case Studies, Marie Venner with Venner Consulting
- SEP-14 Process, Jeff Lewis and Gerald Yakowenko with FHWA Resource Center & Headquarters

Research

- SCOM proposals approved as 20-7 projects:
 - Determination of the Best Practices for Collecting, Processing, and Managing Roadway Asset Inventory Data.
 - Reducing risks to worker safety in work zones due to distracted drivers.

2015 Highest Priority Work Plan Activities

- We will host a webinar in the fall and focus on getting presentations of completed research.
- Support No Boundaries Pooled Fund – Implementing Maintenance Innovations from State to State.
- Begin a discussion regarding the need for consistent units of measurement in MQA programs.
- Explore the maintenance of best management practices for storm water and silt detention.

Turner -Fairbanks Highway Research Center - Update

“There are lots of exciting maintenance/asset management related activities going on right now at Turner-Fairbank

Highway Research Center. Last month, the newsletter mentioned several projects that were starting up including the “Advanced, Low-Cost Snowplow Visual Guidance System”, “New Approaches to Utility Cut Repair” and “In-Place Recycle Paving Methods: Energy Use Analysis” among others. These projects are continuing to move forward with good progress, with the following highlights for each:

Advanced, Low-Cost Snowplow Visual Guidance

System: Carnegie Mellon University’s National Robotics Center was awarded the contract to carry out this effort, with Dr. Alonzo Kelly and Dr. Herman Herman as the Co-Principal Investigators (PI’s). Currently, a draft literature review has been developed, and initial work has started toward developing the positioning technology that will be used in GPS-denied situations.

New Approaches to Utility Cut Repair: This project is looking at new, novel, and underutilized approaches to address repair and mitigation issues associated with utility cut repair in asphalt and PCC roadways. Some of the newer technologies being investigated are precast repair sections, keyhole excavations, and infrared patch treatments. The study also looks at contractual, regulatory and underutilized techniques that mitigate the need for future utility cuts. The final report will be a best-practice guide with case study examples, and will be completed in early 2016.

In-Place Recycle Energy Use Analysis: The objective of this project is to analyze the true and total energy costs among the recycled-in-place methods, and to summarize the results in the form of guidance for use by state and local transportation agencies. The PI for this effort is Dr. Imad Al-Qadi with the University of Illinois at Urbana-Champaign. Currently, the project is in the literature review and survey development stages.

Integrating 3D Digital Models into Asset Management:

This effort is focused on developing best practice

recommendations that include a plan for the integration of 6D (asset management) design into current US highway construction standards, educational curriculum, and professional practice. Parsons-Brinckerhoff was awarded the contract for this research, and the project is currently in the synthesis phase, where the PI is looking at what highway agencies are currently doing with regard to building asset management information into 3, 4, 5, and 6D digital models.

January saw the completion of the two SBIR (small business) Phase I contracts for the robotic utility relocater project that was mentioned in the last newsletter. The ultimate goal of this project is to develop a partially-robotic system that simultaneously maps subsurface utility conflicts in 3D and installs new utility conduits in near real time. Both contractors performed unique work that focused on multi-modal subsurface detection, 3D modeling, and machine guidance. The technologies developed in these two concurrent contracts both showed good technical promise. If additional SBIR funding come available, the project may move into Phase II, where an actual working prototype is built using the technology developed in Phase I.

Moving forward, we’re presently developing an RFP for a new research project titled “Effective Use of Geospatial Tools in Highway Construction”. This project will look at drone (UAV) use, LIDAR and photogrammetry in the highway construction/maintenance sectors. The synopsis for this project can be found here

<https://www.fbo.gov/index?s=opportunity&mode=form&id=cfdbaf7639b37bd2893eb1d5d3610238&tab=core&cview=0>

Any questions regarding this or any other research and development-related work at Turner-Fairbank Highway Research Center may be directed to Morgan Kessler, PE, Morgan.Kessler@dot.gov, 202-493-3187.”

Transportation Research Board - Update

If you haven’t heard by now, the 2015 Summer Meeting in Des Moines, IA will be jointly sponsored with TRB. It is our goal to present research topics related to the Maintenance Subcommittee’s business as much as possible. Asset Management and Performance Management papers are available. Six categories for papers were identified. Because of the joint meeting with TRB and the need for additional time for other activities, no Technical Tour was scheduled for this summer’s meeting.

TRB worked with the TWG Chairs to determine which paper presentations will be presented during each of their breakout sessions from the list of presentations that were provided earlier in the year. Time frames for presenting research papers were determined and shared as part of the

latest draft agenda. Research papers will be presented during the main sessions and as part of the TWG agendas. Papers are grouped by Winter Maintenance, Safety and Reliability, and by TWGs.

TRB emailed out information to the TWG Chairs regarding research paper contacts, dates for presentations, papers, and specific TWG’s and the main session. Full papers were posted for review through E-Circular. Centers were encouraged to send papers to the Iowa Team electronically so that they can upload them on computers prior to the speakers making their presentations.

If you have any questions regarding any research related topics, please contact James Bryant, Senior Program Officer, TRB Liaison at jbryant@nas.edu or 202-334-2087.

Salt Availability Summary:

An AASHTO survey was completed in late 2014 regarding the availability of salt. SICOP also used the Snow Ice List Serv to ask followers (15 respondents) for information regarding their experiences on the availability and cost of deicing salt. It seems that major factors contributing to increases in prices are associated with shipping and market pressure associated with supply and demand. In the NE it was confirmed that with the port terminal that the main-stockpile is approximately a third of its normal size for this time of year. Several states had an increase of more than 30% across the state. The NE and MW regions noted that trucking is an issue. Some states noted that they do not anticipate shortages if they have a “normal” winter. In the

SE some vendors told states not to expect anything available beyond the quantities awarded in their new contracts for the coming winter. Many cities received no bids as they waited too long to buy salt. In the MW, some states experienced significant increases on the order of 100%. Some states that couldn't get salt early rebid later and were able to secure salt. Some states noted that the cost for salt depended upon the location it was coming from. Salt coming off the Mississippi River tended to be higher compared to other locations. Some states encourage the use of large regional storage facilities if possible to help when supplies tighten up. In the west, prices went up slightly due to trucking issues and haul distance. – Rick Nelson: AASHTO-SICOP Coordinator – November 2014

MoDOT Prepares for Winter with Statewide Drill:

Long before snow was in the local forecast the Missouri Department of Transportation began to test its readiness for the upcoming winter season with a statewide drill in early November. The drill tests MoDOT's winter battle plan to ensure its readiness to get travelers back on Missouri roadways as quickly as possible after winter storms. Over 3,500 MoDOT employees are involved in their winter operations, including every maintenance crew across the state. The annual drill helps to make sure the employees know their roles during a storm, and they can do their jobs successfully. The department's emergency operations centers activate and maintenance employees deploy to their trucks. One of the most valuable parts of the drill is to measure their snowplow circuits by driving routes they may have modified since the previous winter season. In addition, all maintenance employees complete an annual winter skills training that serves as a refresher course for plowing snow. The training assures that proper equipment operation, plowing techniques and safety measures are fresh on

employees' minds as winter approaches.

<http://www.modot.org/newsandinfo/District0News.shtml?action=displaySSI&newsId=199113>

The Minnesota Department of Transportation absolutely has “getting ready for winter” training in every district which includes completing annual refresher training (7 modules) and we have driving simulator training which is mobile and travels around the state. The Michigan Department of Transportation (MDOT) conducts training for drivers/plow operators in the fall each year primarily for new or newer employees. The South Dakota Department of Transportation hosts winter preparedness meetings at the Region level with Highway Patrol and local law enforcement, as well as at the Central Office level with the Office of Emergency Management, Highway Patrol, and the Governor's office. Plow operators participate in a Rodeo and winter maintenance training. New operators undergo 40-hours of ride-along training prior to plowing.

Top 10 Concepts for World Class Winter Maintenance Programs:

The Top 10 list of concepts that define a world class winter maintenance program was developed based on input obtained from winter maintenance professionals around the globe. Utilizing a process of consensus building the following were determined to constitute the Top 10 (there was a tie). The following descriptions provide some clarity to each of the items in the list.

- 1) Adequate funding for operations and sustainability: No money, no workee! Or, more seriously, a sustainable winter maintenance program requires appropriate long term funding levels.
- 2) Using sustainable winter maintenances practices: Sustainability requires balancing three factors – economics, the environment, and the public need. Building a winter

service program around these three legs creates a system that can provide optimal benefits to all.

- 3) Accurate and timely weather forecast: Especially when anti-icing is being used by an agency, accurate forecasts are critically important and they must be delivered in a timeframe that is appropriate for the agency with regard to staffing decisions.
- 4) Optimal route planning: With limited resources, getting the most out of our trucks is critical. Optimizing routes is one way of doing this.
- 5) Equipment and equipment calibration: Having the right equipment to dispense product for a given winter maintenance task is half of the issue. The other half is making sure it is calibrated correctly, so you know what exactly it is doing.

6) Equipment maintenance program (preventative and routine): Making sure that your equipment can perform as needed during a storm requires some sort of program to do both preventative and routine maintenance on that equipment.

7) Efficiency in operations --- intelligent use of resources: Any agency has a finite number of resources – trucks, people, materials, time. Using those resources in the most efficient way possible is always a key goal.

8) Communication between operation controllers and drivers: Good winter maintenance needs responsiveness to changing conditions during and after a storm and good communications between drivers and supervisors is critical

to achieving this.

9) Snow plans (Include operational evaluation/continuous improvement): A detailed plan for an agency is an absolute must and should be the guide for all actions before, during, and after a storm.

10) Standards in winter---service: What standards are you trying to achieve? Are they the standards your community wants or are you not giving them what they need?

11) Defined levels of service: Most agencies are required to provide differing levels of service on different road types. Having those levels of service well defined is a critical part of a winter maintenance program. – Rick Nelson: AASHTO-SICOP Coordinator – April 2015

From the Editor's Desk:

AASHTO Subcommittee on Maintenance - Assistant Secretary
John A. Perry, FHWA Field Operations Engineer, Idaho Division Office
Email: johna.perry@dot.gov; Phone: 208-334-9180x116

I would like to express my thanks to all of you for continuing to get me the information I need to do the job you've asked me to do. I appreciated getting the opportunity to meet and work with more of you each year. To all newcomers to the AASHTO Subcommittee on Maintenance – Welcome Aboard!

I would like to wish a fond farewell to Anwar Ahmad, our FHWA Liaison to the Bridge TWG. Anwar was recently selected as the new Resource Center Structures Team Manager within FHWA and can no longer help us in this capacity. We will miss his expertise as Senior Bridge Preservation Engineer within FHWA. Thanks Anwar!

I would also like to extend a special welcome to Morgan Kessler as our new FHWA Bridge TWG Liaison. Morgan is our Infrastructure Preservation / Asset Management Research Engineer at our Turner Fairbanks Highway Research Center. Many of you will be able to welcome Morgan for the first time at the upcoming annual SCOM meeting in Des Moines, IA. Welcome Morgan!

Maintenance Peer Network Exchange

The Maintenance Peer Network Exchange has been a world wind of innovation that can transcend nationally and regionally to enhance the safety and efficiencies of highway maintenance. Groups of Highway Maintenance Professionals have met in Arizona, North Carolina, and

Pennsylvania to discuss their best practices and where they could use some help.

In May 2015 we are scheduled to meet in Missouri for the last regional meeting, but the work does not end there. Several areas have been identified for research, development, or technology transfer (RD&T), for example; the impacts of performance management on non-measured maintenance activities, the economic value of various highway service levels, the return on investment of various automated vehicle (AVL) systems for maintenance equipment, the return on investment for highway activities tracking (HAT) systems, and others.

FHWA has already picked up and is seeking funding to advance the integrating of maintenance management systems with other existing State DOT systems, case studies concerning the efficient balance of resources between reconstruction, rehabilitation, preservation, and maintenance of the highway infrastructure, construction quality assurance best practices for micro surfacing, slurry seals, and chip seals, integration of emergency response systems with maintenance management systems, and others as resources allow.

Thank you all for your hard work and be safe in all you do.
- Bryan Cawley: AASHTO SCOM Secretary

Summer Meeting Information

Iowa Department of Transportation – Office of Maintenance

Mission Statement: In partnership with field maintenance, we will manage our maintenance operations so that consistent, effective and quality services are provided to the traveling public.

- Winter operations
- Winter travel information
- WeatherView/AWOS
- Adopt-A-Highway information
- Maintenance garages and roadways
- ROW harvesting and mowing

Robert A. Younie, P.E., Iowa DOT; State Maintenance Engineer
515-239-1589
bob.younie@dot.iowa.gov

The leadership team began coordination in January 2015.



The final date for the SCOM/TRB Conference will be scheduled for July 2015 in Des Moines, IA. The DOT is trying to select a hotel at this point. Coordination efforts will begin around the beginning of the year.

Conference Website: <http://www.iowadot.gov/2015scom/>

Planning and logistics with the Marriott are progressing well. Room space appears adequate for Concurrent Paper and TWG Breakout Sessions. Five concurrent break-out rooms have been secured and TWG's will be allowed to stay in the same rooms throughout the conference. The Marriott is flexible in hanging signs and conference planning is being managed by a consultant, Meetings Management.

The evening events are on track. Good options are being planned for spouses. Evening activities include the Sunday Vendor Social, Monday Social Event, Tuesday Iowa Speedway Event & Dinner, and the Wednesday Banquet / Entertainment at the Conference Center. Sponsorship for the speedway event is secured for Tuesday evening and the other evening events are coming along great as well. Day 1 (Monday) will be a coach / shopping tour. Day 2 (Tuesday) will be a local do-it-yourself tour, winery with transportation, and the Speedway Tour. Day 3 (Wednesday) will be the closing session with entertainment.

Ernie is working with vendors and sponsorships. Poster sessions – Exhibit areas – Informational areas: there will be about 25 exhibits / vendors. Information is being shared with the exhibitors. Volunteers are being solicited to help out as needed throughout the conference. Craig and Monica are available to answer questions regarding the event and Ernie will answer questions regarding vendors.

Future AASHTO SCOM Meetings:

- 2016 Nevada – WASHTO
- 2017 Rhode Island
- 2018 North Carolina
- 2019 Michigan

Useful Links and Information:

USEFUL LINKS AND INFORMATION

- AASHTO SCOM Home Page
<http://maintenance.transportation.org/Pages/default.aspx>
- AASHTO SCOM References, Publications, & Links
<http://maintenance.transportation.org/Pages/References.aspx>
- AASHTO Transportation Curriculum Coordination Council
<http://tccc.gov/>
- FHWA Preservation (Pavements, Structures, Research)
<http://www.fhwa.dot.gov/preservation/>
- FHWA Pavements Preservation
<http://www.fhwa.dot.gov/pavement/pres.cfm>
- FHWA Long-Term Bridge Performance Program
<http://www.fhwa.dot.gov/research/tfhrc/programs/infrastructure/structures/ltpb/>
- FHWA Road Weather Management
<http://www.ops.fhwa.dot.gov/weather/>

- FHWA Federal-aid Essentials for Locals
<http://www.fhwa.dot.gov/federal-aidessentials/indexofvideos.cfm>
- Google State DOT Search Engine
<https://www.google.com/cse/home?cx=006511338351663161139:cnk1qdck0dc>
- Maintenance Manual (July 2014) – California
<http://www.dot.ca.gov/hq/maint/manual/maintman.htm>
- Snow and Ice Best Practices – Ohio
<http://www.dot.state.oh.us/Divisions/Operations/Maintenance/SnowandIce/Pages/SnowBestPractice.aspx>
- Structure Maintenance and Investigations
<http://www.dot.ca.gov/hq/structur/strmaint/>
- TRB Committees Related to Maintenance and Preservation
<http://www.trb.org/MaintenancePreservation/TRBCommittees.aspx>
- TRB Research Related to Maintenance and Preservation
<http://www.trb.org/MaintenancePreservation/MaintenanceandPreservation1.aspx>