

DRAFT Minutes
Winter Maintenance Policy Coordination Committee Meeting
AASHTO/APWA/NACE

April 4-5, 2001
Roanoke, Virginia

Attendees

Pat Hughes, Chairman—AASHTO WMPCC (Minnesota DOT)
Lee Smithson, SICOP Coordinator—AASHTO (Loaned Staff from Iowa DOT)
Mujeeb Basha—AASHTO Staff
Paul Pisano—FHWA
Larry Frevert—APWA (Kansas City, Missouri)
Dave Gravenkamp—NACE, (Siskyou County, California)
Steve Brandau—NACE, (Geneseo County, Illinois)
Rick Nelson—Lead States Program (Nevada DOT)
Andy Bailey—AASHTO Southeastern Region (Virginia DOT)
John Blacker—AASHTO Western Region (Montana DOT)
Clayton Sullivan—AASHTO Western Region (Idaho DOT)
Joe Doherty—AASHTO Northeastern Region (Virginia DOT)

Guests

Lewis Moore—U.S. Department of the Interior
Perry Cogburn—Virginia DOT
Dan Roosevelt—Virginia DOT

Chairman Hughes called the meeting to order at 8:00AM on Wednesday April 4, 2001 and had everyone introduce himself. Since there were new WMPCC members and guests, Pat explained the purpose and history of the Committee. He also reviewed the two scanning tours and what was learned. Members shared their observations on how far the snow and ice control industry has progressed since the technology discovered on those scans was brought back to the U.S. and shared with both the private and public sectors.

It was brought up that the new AASHTO directory does not list the WMPCC. Mujeeb will follow up with the appropriate AASHTO staff and report back.

WMPCC discussed the importance of getting scanning tours published and out where people are likely to see and read them. Posting them on the SICOP Web Site seemed to be a good way to get better exposure. Lee will follow through with Wilf and determine how to get both tour reports on the web. Lee will contact the International Scanning Selection Committee and see if they have been provided a copy of the reports and if not insure they get a copy.

WMPCC discussed the Draft White Paper on Membership, Rotation and Termination. Pat reviewed the rotations and additions to the WMPCC that have already taken place and will occur. Since Clayton is retiring at the end of April, and John Blacker will be Clayton's

replacement as the AASHTO Western Region Representative. Dave Gravenkamp rotates off and Steven Brandau is the new NACE representative. WMPCC agreed that the concept presented in the White Paper was adequate with the addition of another sentence “The chair in consultation with appropriate AASHTO staff will consider balance before rotations occur”. The reason this sentence will be added is to ensure WMPCC membership brings a total winter perspective to the table, therefore, “balance” would imply dual membership in organizations such as Aurora, PNS, etc. is accomplished. Lee will attach a final copy of the White Paper to these minutes. A question was raised if a member is unable to attend a WMPCC meeting, can an alternate attend and vote in their absence? Mujeeb will check AASHTO policy and advise so it can be discussed at the next meeting.

Work Plan Reports

Project #1—RWIS/AI Training Package (Rick Nelson)—Rick reported the following highlights: a contract was awarded to Gantek Multimedia; 27 states and APWA have signed up for the CBT package; and the contract period runs from March 16, 2001 to August 16, 2002. The scenarios used in the CBT will integrate with the FHWA MDSS project. Steve will contact NACE and determine if they want to join at the \$5,000 level. Further details for this project are posted on the SICOP web site.

Project #2—Equipment and Facilities for RWIS and Anti-icing (Rick Nelson and John Blacker)—Rick reviewed the concept for this project is to help those who are just getting started in the anti-icing business etc. The project will be a companion to the written material SHRP and FHWA published on how to get started and then use the SICOP web site to identify best practices and who to contact for further details. Rick and John will develop a project statement and post it on the SICOP web. WMPCC discussed the need to maintain credibility of the information that gets posted on the web. Action—John & Rick to discuss this further with Wilf.

Project #3—Road Condition Information to the Customer (Lee Smithson)—Lee reviewed progress on the NCHRP 6-14 project which explores using friction measurements in snow and ice control operations and reporting friction measurements to the motoring public. The project is scheduled to be completed by August 16, 2001. At that time WMPCC should know if using friction is feasible or if additional research will be needed. Additional project information is posted on the SICOP web. WMPCC discussed the 511 issue and how to get consistency in road condition reporting. WMPCC felt there is a need to broaden the scope of this project to include other condition reporting. Friction is just part of what needs to be reported. There is a need and an opportunity to promote road condition information standardization, however, that is beyond the original scope of this project. WMPCC needs to keep active in this problem through close coordination with Aurora, Foretell and CARS and determine its appropriate role. If this role is beyond what WMPCC was originally established to do, a letter should be written to SCOH for permission to get involved as it pertains to winter road condition reporting.

Project #4—Driver Education (John Blacker)—John reviewed Montana DOTs progress in participating in their states driver training program. MT DOT employees teach in the classroom. Mary Ann Tuey has met with FHWA in an effort to expand the program. John will develop a

project scope and post on the SICOP web site. John will survey the states in WMPCC and determine what they are doing and post the results on the web.

Project #5—Anti-icing Chemical Specifications (Dave Jones)—a new project scope needs to be developed for this project and posted on the SICOP web.

Project #6—Anti-drifting (Joe Doherty)—WMPCC discussed and approved Ron Tabler's proposal to digitize the "Design Guidelines for the Control of Blowing and Drifting Snow" for \$6,000 so it can be posted on the SICOP web. Joe will contact Ron and have him submit a contract proposal to Lee for processing and approval. SNOWMAN will be tested and evaluated next month. Joe will pursue the details of handing this off to AASHTO for further distribution. Joe and Lee will review the deliverables of SNOWMAN and evaluate national application and the development of a SICOP project statement.

Project #7—Urban Winter Maintenance Practice Guide (Larry Frevert)—Larry reported on the status of the project. APWA staff has budgeted for a writer to compile the materials. The Resource Input Form is attached to these minutes. Each attendee at the APWA 2001 APWA North American Snow Conference will receive a copy of the Resource Input Form in their registration packet. In addition, each roundtable session have Resource Input Forms available and notes from these sessions will be collected to help identify content and sources. APWA plans to market the guide, so no money from SICOP will be needed. Larry will prepare a project scope and post it to the SICOP web.

Project #8—Automatic Fixed Remote Chemical Distribution Systems (Paul Pisano and Andy Bailey)—Paul reported that an excellent paper presented at TRB on cost/benefit (Paul please insert the author and title). FHWA has funding appropriated to T&E a "Freeze Free" system. Wisconsin has one installed. FHWA would participate at 40% level and is considering whether to use a pooled fund for the \$800,000 or to advertise for specific state proposals. Recommendation was to try the specific state proposals and if that doesn't bring forth the candidates FHWA is looking for then go to the pooled fund. Paul will send a revised spread sheet summarizing the state of the practice for users of fixed, automated anti-icing spraying systems to Wilf for posting on the SICOP web. Paul will work with Lee on the possibilities of a workshop to populate the matrix. WMPCC discussed anti-icing operations advisory signing—it needs to be a national consideration, because uniformity of practice. A project scope needs to be prepared and posted on the SICOP web.

Project #10—State of the Practice AVL Technology (Andy Bailey and Lee Smithson)—Lee distributed a project update and discussed the difficulties of getting data to perform B/C calculations. Anecdotal observations indicate that VA DOTs contract maintenance was made more efficient when monitoring occurred. WMPCC discussed the value of getting and posting AVL reports posted on the web. A good start would be to send a list of questions to the people on the 1998 list and use that information to update the matrix. More project details are posted on the SICOP web.

Project #11—On Board Freezing Point Measurement (Wilfrid Nixon and Lee Smithson)—Lee distributed the project scope that was posted on the SICOP web. Chemical measuring device has

been installed on the concept vehicle, but did not get sufficient field testing to insure it will perform under rigorous snow and ice control operations. More project details are posted on the SICOP web.

Round Robin

Pat—reported that all the writers of papers for 2002 PIARC Conference have been notified. Pat believes from his international reviews that WMPCC needs to put additional effort into studying performance measures. MN DOT is going to Michigan to view a winter driving simulator for possible application in the MN DOT operator training program.

Paul—wants program time at the SCOM summer meeting to discuss Winter Performance Measures. Pat wants to put this on the next WMPCC meeting agenda. Need to post details about the progress of States that have successful integrated SSI/Coastal etc—Nevada, WA, VA

Lee—Iowa plans on exhibiting the concept vehicle at the 6th Annual Eastern Winter Road Maintenance Symposium. Lee will facilitate a Contract Maintenance Technical Session at the PNS Conference in May. Also the abstract he submitted on “Implementing Technology Discovered on International Scanning Tours” has been accepted by PIARC.

Joe—reviewed Tony Sambuca’s work with SSI in breaking down the technologies and getting separate prices. Other governmental agencies can buy off NYSDOT contract. Big push to buy treated salt (environmental benefit studies, but most have high phosphorous which has a negative impact on water system, the point being watch out for agricultural based products because they contain other negative aspects)

Clayton—reported on environmental concerns in the northwest, and the push for use of corrosion inhibitors on snow and ice control chemicals. One such is the affect of chemicals on mag wheels (pitting) and other metals. Mag chloride is attacking aluminum, copper and magnesium in cars. WMPCC needs to identify the problems and notify the auto industry when these things are know. Idaho DOT has a CBT CDROM on winter maintenance which he will send to WMPCC members.

Ric—reported that they have a tristate area that meets and works on snow and ice control problems such as water quality (water clarity, been monitoring point source at each culvert) in the Lake Tahoe area, ie runoff, resulting moving from abrasives to chemicals. Have finished a document on erosion and starting one on snow and ice control

Dan—reviewed an Aurora proposal to be sent to AASHTO SCOH to form a partnership to standardize and improve the accuracy of RWIS data sources that will form the WIST database. Aurora will be writing a letter to the AASHTO SCOH chairman indicating that Aurora has \$50,000 to pool with others and offering that Aurora will do the ground work to get the project going if AASHTO will solicit the pooled funds. Ric says the COMET project in Utah is also working on this. Meso West is putting the data together from RWIS, AWOS, plus others and putting them together. WTI (Ed Adams) is also working on this. The whole point of the

conversation shows that many people are working on pieces of this puzzle and WMPCC should look at pulling them together in a white paper and avoid duplication. Dan and Lee need to develop a scope of work for WMPCC to consider.

Perry—having fourth quadrennial meeting on RWIS equipment meeting and traveler information.

Mujeeb—NTPEP meeting next month will discuss PNS specifications and see if NTPEP should have a forum on this. Mujeeb will meet with PNS people next month to see if there are tests or evaluations that NTPEP should be doing to help out. Evaluating new LED plowable road markers.

Lew—was here to learn. Trying to gather accident data on Department of Interior lands with little success. There is a need for better information. There is opportunity for cross fertilization on the water shed analysis work they are doing.

Larry—APWA Snow Conference next week and the Winter Maintenance Subcommittee will meet. Kansas City is evaluating covered salt storage and working with the state DOTs on sharing storage. Vehicles have bar coding to keep track of the loads each agency receives. Nevada is also doing this and will share a report on the results. MNDOT has formal agreements and considering using bar codes. Larry would like to see a document put together showing trucks per lane mile etc to give a guide to governments.

Andy—post winter briefings will be held at VDOT next week to see what lessons can be learned. 511 project, “Travel Shenadoah” will be evaluated this summer. Governor asked for another 500 miles to be contracted next year. Environmental considerations will change the ways we do snow and ice control in the future. VDOT finds they are buying wells and water systems because they have contaminated the area from past salt storage sites.

John—Dave will be the Winter Operations and Safety Task Force Leader after the AASHTO HSCOM summer meeting. Ed Adams developed a web site “WTI.safepassage”. MT DOT radio technicians are doing RWIS servicing, not SSI anymore, and getting better service. Three issues to bring to WMPCC: ITS; training of maintenance people; and privatization. MTD had a letting for private truckers to plow, but the price was five times more expensive than using in-house people and equipment.

Proposed Scanning Tour to Japan

WMPCC discussed the scanning tour scope and listed the following considerations:

Interagency coordination and cooperation—how do they do it? Advantages and disadvantages of co-locating their weather bureau in the traffic management center; Also take a look at how the other agencies interface.

Japanese developed road-weather mark-up language and probably had institutional issues, what were they and how did they resolve them? Do they have business models for weather agency and traffic agency that are different from ours?

Find out in the business model how far their weather service processes the data and customize it for their traffic management people.

Develop a list of Japanese environmental concerns and on-going/proposed environmental research. In the United States there is a greater dependence on surface water rather than digging wells. Is the same true for Japan? Are there design techniques they deploy for snow and ice control. Do they publish chemical/abrasives rates?

Equipment systems—what do they use? Do they specify open systems architecture for ESS and information systems?

Dissemination of information—public, in-home, in-car (infrastructure). Is it free or buy a subscription?

Document snow disposal processes and the associated costs.

Are there new concepts for the concept vehicle that should be benchmarked?

Is the new pavement design using imbedded rubber strips at stop signs to prevent bonding of snow and ice working? Problems, advantages, disadvantages, materials used.

Discuss the accuracy requirements for temperatures, friction, chemical devices. What verification processes do they use for equipment. How do they screen and analyze their data?

Snow engineering, elements in the curriculum

Status of the Snow Engineering Manual—did it get finished and published?

Performance Measurements—for inhouse provided services and contract services. What are they and how are they measured. Results?

Privatization—size of contracts, performance measures, incentive payments, penalties, warranties, level of service requirements, performance bonding.

Quality of construction—materials ie lots of galvanized and stainless steel and high type design?

Suggestions for tour members

Co-chairs

Mike Ryan

Parker Williams—Maryland chair of Advanced ITS

Dean Carlson

FHWA

Paul Pisano
Shelley Row
Christine Johnson

Reporter

Dan Roosevelt
Ken Brewer
Tom Maze
Tom Martinelle

Team Members

Dave Jones
Ric Nelson
Joe Doherty
Wilf Nixon

Tim Wolf Arizona ITS
John Scharfbillig/Mark Wilkeius/Paul Kernan (ITS)
Bill Legg ITS/Traffic
John Whited (ITS)
Mary Martha Churchman FTA Rural Transit ITS
Greg Mant NWS Wash DC
NACE/APWA

Timing

SIRWEC Jan 26-28
PIARC Jan 28-31

Outreach

2001 APWA North American Snow Conference—Larry will facilitate a round table on automated spraying systems
FHWA MDSS—Paul is project coordinator, Lee is a member of the project team
PNS—Lee will facilitate a panel on Contract Maintenance
Western States Snow Conference—participation is unknown at this time
Eastern States—Ric Nelson will participate (subject to be determined) Iowa Concept Vehicle will be on display
ITS America—Paul has two weather presentations

Other

Sapporo—FHWA booth, MDSS information, Mujeeb look at making SICOP brochure, multi-language sign, Snow-Ice Manual (copy on display with order forms)

Is a workshop needed after PIARC/Winter Scan to identify SICOP projects?

Paul reviewed some of the issues with the automatic bridge spraying anti-icing project

- Algorithyms for firing the system
- Notice for drivers?
- Paul Kernans paper on B/C-need to put it on SICOP web
- Dan Roosevelt will have a paper on VDOT (subject?)
- Do we need a workshop to learn from each other(Paul will update the matrix and discuss at next meeting)

Lee handed out the research problem statement that Wilf chairs (TRB A3C09). The title is “Balancing Level-Of-Service Requirements With Environmental Concerns in Snow and Ice Control Operations” This was one of the top two problem statements in Section C so will go forward for consideration in the NCHRP FY2002 program.

It was suggested to hold the next WMPCC meeting in the state that the scan chairman comes from or hold it in conjunction with western states snow conference in September.

It was agreed that all project statements not currently on the web should be written and posted on the web in the next 30 days. Use the format that the projects currently on the web have used. Lee is to follow up to insure projects get posted.

Draft Version April 19, 2001