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Minutes
Winter Maintenance Policy Coordinating Committee Meeting
AASHTO/APWA/NACE
November 15-16, 1999
Peppermill Hotel
Reno, Nevada

Attendees:

- Pat Hughes, Chairman – AASHTO (Minnesota DOT)
- Rod Pletan, SICOP Coordinator – AASTHO (Loaned Staff from MNDOT)
- Mujeeb Basha, AASHTO Staff
- Paul Pisano – FHWA Staff
- John Blacker – AASHTO Standing Committee on Maintenance (Montana DOT)
- Rick Nelson – Lead States Program (Nevada DOT)
- Wilf Nixon – TRB Committee on Winter Maintenance (Professor-University of Iowa)
- Lee Smithson – AASHTO Central Region (Iowa DOT)
- Clayton Sullivan – AASHTO Western Region (Idaho DOT)
- David Gravenkamp – National Association of County Engineers (Siskyou County California)
- Andy Bailey – AASHTO Southeastern Region (Virginia DOT)
- Larry Frevert – APWA Sub Committee on Winter Maintenance (Kansas City, MO)

Chairman Pat Hughes called the meeting to order at 8:00 AM on Monday morning and called on Mujeeb to provide a report on the status of the (Snow and Ice COoperative Pooled fund program) SICOP program funding.

Mujeeb distributed a program revenue/expense summary. Two funds solicitations have been held in the past and as of this meeting, the program account balance is \$100,000. No further solicitation is planned for the immediate future, given the account balance.

As discussed briefly in the Kansas City hosted meeting last June, Pat confirmed that Rod is retiring from the MN DOT in late January and as a result he will also no longer serve as the SICOP coordinator. He is in his second year of “loaned executive” service from MN DOT and he has done an excellent job both for the DOT and as SICOP’s first coordinator. Discussions have been held and it appears that Lee Smithson will be assuming Rod’s position. The Iowa DOT has tentatively agreed to participate in the “loaned executive” program. Lee advised that he plans to work through 2003 and looks forward to serving SICOP until that time. On a motion made by Larry, the WMPCC recognized Rod for his service to the committee and endorsed Lee as the new SICOP coordinator.

Paul gave an overview of several projects in which he is involved:

- Weather and Winter Mobility Program: He is coordinating this project intended to improve weather forecasting as it relates to surface transportation.
- Foretell: Is an ITS related project to provide road and weather related information via the Internet as a pilot project in the Midwestern states of MO, IL, WI, MN and IA.

- “Ice Warriors”: An attempt is underway to revive this program, possibly under the auspices of the ITS “peer to peer” program. Larry asked Paul about the potential for local government participation and about the time commitment required. He also asked for a description of the participant’s duties.
- Paul distributed a draft paper entitled “An Overview of Methods to Graphically Present Traveler Information,” co-authored by himself and Kun-Hung Chiang. The crux of this paper is to present traveler information via the Internet.
- Paul reported that the Civil Engineering Research Foundation (CERF) report on *Ice Ban* has been issued. To summarize, their research has found that Ice Ban products can be an effective aid to snow and ice control operations by melting snow and ice faster and at lower temperatures than traditional ice control agents, with little or no adverse effects on roads, infrastructure or vehicles.

John Blacker reported that he had reviewed with the AASHTO Standing Committee on Maintenance, the SICOP goals.

Rick Nelson reported that the Lead States program is attempting to develop benefit/cost methodology for RWIS and anti-icing. He discussed two NCHRP projects, 6-13: Winter Maintenance Materials and Methods (both Rick and Larry serve on this project panel) and 6-14: Friction Measurement. Rick also discussed the Technical Working Group (TWG) planned for the two days following this meeting. This TWG will be charged with developing the guidelines for the Request for Proposal (RFP) to develop CBT (Computer Based Training) for RWIS and anti-icing.

Wilf Nixon reported that the TRB Committee on Winter Maintenance will sponsor three sessions at the January annual meeting of TRB. These sessions will be on anti-icing, new technologies and policy development and implementation. Following the TRB annual meeting, there will be a maintenance research workshop. Next September the 5th Snow Removal and Ice Control Symposium will be held in Virginia, in conjunction with the Eastern States Snow Conference. Finally, Wilf asked what can TRB do to encourage greater US participation in the next Permanent International Association of Road Congresses (PIARC) Winter Conference in Sapporo, Japan in 2002.

Lee Smithson discussed the Aurora Program and distributed a paper identifying seven current projects active under Aurora. Lee reminded the attendees that Aurora is funded with a portion of the Strategic Planning and Research (SPR) funds allocated to the states active in Aurora.

Larry Frevert discussed the APWA Sub-Committee on Winter Maintenance and its three objectives: Web Site, Education Sessions and the Urban Winter Maintenance Guide.

Rod Pletan reminded the attendees that a summary report had been provided on the “Slipperiness Study.”

Pat then advised the attendees that each of the SICOP priority project champions were to make a report on their progress and provide recommendations on their project. These reports are as follows:

1. RWIS/Anti-icing Training – Rick Nelson: Rick reiterated that the TWG will meet on Wednesday and Thursday of this week with some of this meeting's participants plus others who will be joining us. His intent is to pursue CBT for RWIS/Anti-icing, which is accessible via the Internet. Rick envisions this being a "library" of information resources transportable to other agencies. The TWG will be charged to provide a timeline, refined scope and proposed budget.
2. Equipment and Facilities for RWIS and Anti-icing – Rick Nelson and John Blacker: John advised that for the long term, further refinement of equipment related projects is needed. In the interim, a web page listing anti-icing equipment, practices, techniques and procedures is needed. Rick will have a contractor develop a web site and identify a URL so it is available on the Internet. Rick invited people to send him information on this subject. He will identify a temporary server and the site will be developed for transfer to a permanent server later.
3. Road Condition Information to Customer – Lee Smithson: Lee advised that some work has been done which correlates a coefficient of friction exceeding 0.45 to indicate a "green" normal condition, 0.35 to 0.45 correlating to a "yellow" caution condition and less than 0.35 correlating to a "red" potentially hazardous condition. Lee advised that he'd like to defer this project to our spring meeting when he can present a better-defined scope for this project.
4. Driver Education – John Blacker: John referred to a Montana DOT video on safe driving and also referred to the MT DOT web site: <www.dot.state.mt.us>, which provides 24-hour road condition information. John proposes to pursue a TWG of customers and service providers to identify the art, state of the art and the need of the customers.
5. Anti-icing Chemical Specifications – Clayton Sullivan: Clayton reported that the Pacific Northwest States (PNS) chemical specifications have been adopted by 26 states and he proposes that SICOP adopt them as our recommended standard. Clayton agreed to post the specifications on the web site and receive comments on them with the intent of future adoption as the standard.
6. Anti-drifting – Clayton Sullivan: Clayton hasn't had a chance to work on this project. He commented that there are two alternatives, pro-active with design considerations or reactive with snow fence configurations. He suggested broadening of the *Snow Fence Design Guide*. He suggested that a TWG be called to identify state of the practice and identify further needs for an updated design guide that includes living snow fences and roadway design considerations. Clayton will draft a scope for the TWG and distribute electronically to the WMPCC for concurrence.
7. Urban Winter Maintenance Practices Guide – Larry Frevert and Wilf Nixon: Larry reported that the APWA Sub-committee on Winter Maintenance has a task force addressing this project. They have considered an update to the 1965-66 APWA publication and prefer a different title "Best Regional Winter Maintenance Practices for Cities and Counties." Larry suggested SICOP assistance may be needed but for now it is being considered as an APWA

publication. He suggested that involvement of NACE might be appropriate. He believes the funding requirements will be better defined after the spring 2000 APWA Sub-Committee on Winter Maintenance meeting. There was concern expressed over the similarity of this project with the already developed AASHTO Winter Maintenance Guide. It was also suggested that this guide might warrant SICOP funding participation since some state agencies have urban responsibilities similar to cities and counties.

8. Automatic Fixed Remote Chemical Distribution Systems – Paul Pisano: Paul advised that a TWG needs to be called to explore the “state of the art” for this effort. Lee Smithson and Andy Bailey will help with this effort.
9. Model Media Package – Wilf Nixon: There was discussion of whether this should be focused on media relations before the snow season or during the storm. It was suggested this activity be combined with #4 and establish a cross-link to #3 with the “voice of the customer” incorporated. There was concern expressed that if this activity combining and cross-linking occurs, the need for a model media package should not be lost.
10. ITS/GPS/AVL Technology – Andy Bailey and Lee Smithson: Lee advised that the Iowa DOT, under phase II of the maintenance concept vehicle, will be activating 18 AVL equipped trucks this year, similar to the units in service in Iowa, Minnesota and Michigan. Phase III will bring 90 additional units on line in 2000. These units will continue with the 9 technologies evaluated on the original concept vehicles. The 108 trucks will test dynamic route optimization techniques during snow and ice removal operations.

Andy advised that Virginia will install 80 AVL units in contract snow removal equipment in Fairfax County. The reason for these installations is command and control. These will represent about 1/5 of the actual fleet and will monitor through telemetry speed, direction, spreading and plowing. This represents an investment of \$250,000 to date.

Alberta, Canada is tracking contractor's work by mounted video cameras and tapes are submitted with invoices. It was suggested this project should be added to our project and monitored.

It was suggested the project should incorporate other agencies using AVL/GPS, develop Benefit/Cost ratio methodology and update the AVL/GPS matrix previously developed.

11. On Board Freezing Point Measurement – Wilfrid Nixon: This project was developed after a prototype unit was observed at the 1998 PIARC Winter Maintenance Congress. The device collects a road spray sample, freezes it and then melts it to determine the freezing point of the spray. It was suggested that a survey will be made of the *Winter Maintenance Mailing List* to determine the state of the practice for this technology.

It was decided that with incorporation of #9 into #4, a new #4 will be identified which will be development of a SICOP web site, to contain information on the *Winter Maintenance Mailing list*, identifies a publication format and establishes a communications infrastructure. Wolf Nixon and Lee Smithson agreed to take the lead on this effort.

Each project "champion" is asked to provide a project title and short paragraph describing the project. This description, to be used by Pat in updating AASHTO on SICOP progress, is needed by Rod within the next two weeks. Pat will present these summaries, timelines and budgets to the AASHTO Standing Committee on Highways (SCOH) during their April 7-11 meeting.

It was suggested that future WMPCC discussion items should include issues regarding contract maintenance to include performance measures.

Clayton offered to host the next WMPCC meeting in Idaho, probably in May 2000.

Rod then reviewed the highlights of his presentation at the Winter Maintenance Symposium over the Labor Day weekend in New Zealand. Rod and Rick both attended. New Zealand contracts 100% of their roadway maintenance and also used contract consultant management of their maintenance contracts. There is a strong, powerful automobile association and trucking lobby in New Zealand. The automobile association opposes the use of salt due to vehicles being imported and they want to minimize corrosion to their expensive automobiles. The truckers pay road taxes based on the kilometers driven per year and are most interested in good road conditions. The country also has a very powerful environmental lobby. Their principal strategy for frost or snow events is to spread grit for traction.